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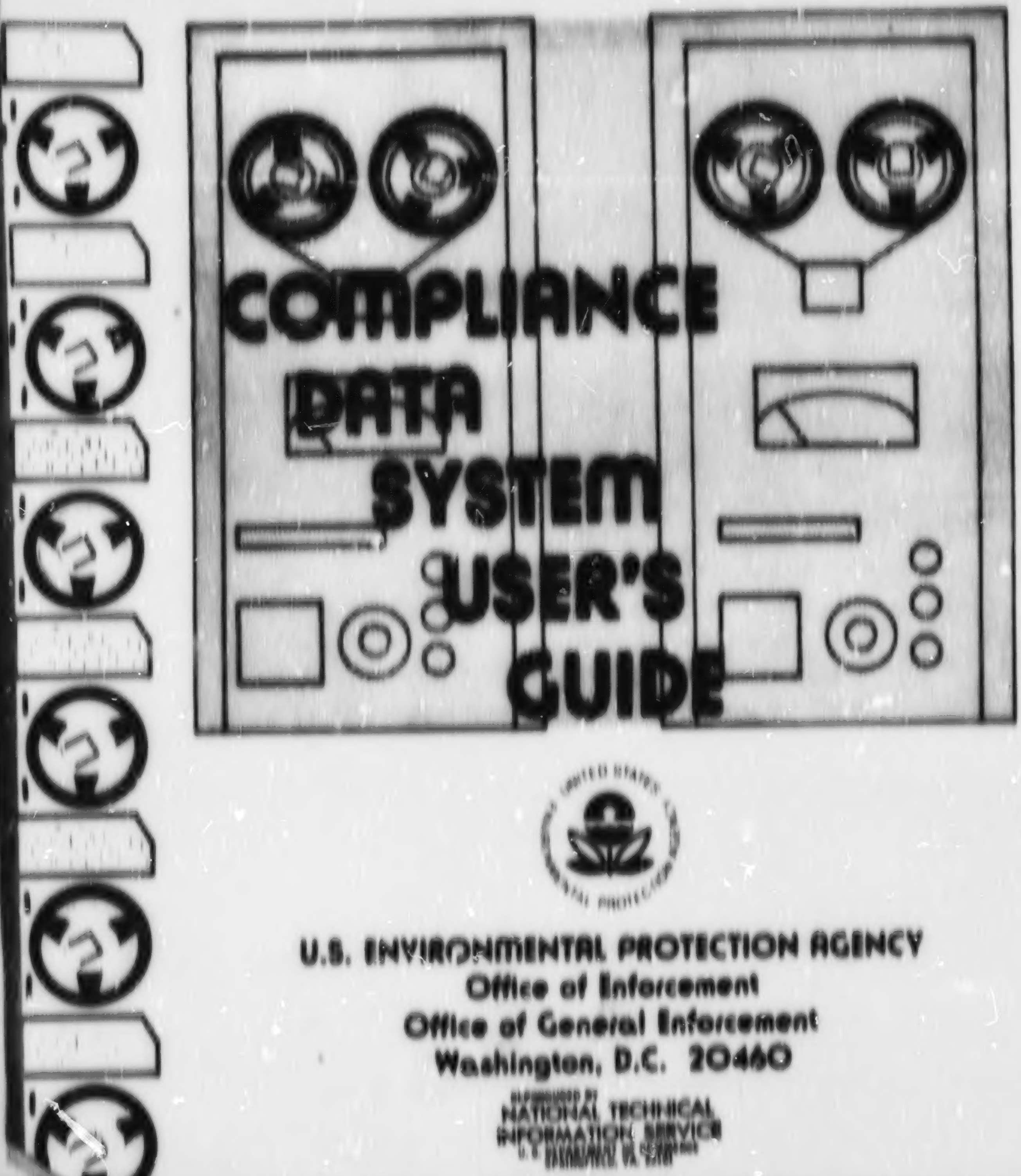

COMPLIANCE DATA SYSTEM USER'S GUIDE

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A user's guide describing the general operation of and specific procedures to be utilized by operators of the Compliance Data System.

16. ABSTRACT

This Compliance Data System (CDS) User's Guide is designed to be the primary source of user documentation regarding CDS. It replaces all documentation dated prior to December 1976, which should be discarded. Supersedes PB-260 611

The guide is organized to be used effectively by several groups of potential readers: Managers and others wishing a basic description of CDS should read Sections 2 and 3, Management Overview and System Applications. Current Users who generally understand CDS will wish to skip to specific sections of interest, particularly Sections 7 and 9, Edit Processing and Retrieval Processing, which reflect recent changes. New Users may wish to read the text in its entirety, at least through Section 9 to obtain a working knowledge of CDS. Those Preparing Input Data should read Section 6, Data Input Preparation.

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COMPLIANCE DATA SYSTEM

USER'S GUIDE

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UPDATES AND REVISIONS TO THIS MANUAL

The Compliance Data System (CDS) User's Guide is updated periodically to document changes to the system. These changes occur whenever reporting requirements are altered or expanded; changes also occur whenever programming enhancements are made to the system.

If you would like to receive all updates and revisions to this manual, please make a copy of this page and mail it to:

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TABLE OF CONTENTS

SECTION PAGE

1.0 INTRODUCTION . . . 1-1

2.0 MANAGEMENT OVERVIEW . . . 2-1
  2.1 Background History. . . . 2-1
  2.2 System Purposes. . . . 2-2
  2.3 System Capabilities . . . 2-3
  2.4 System Functions . . . 2-4
  2.5 System Relationship to Other EPA Systems . . . 2-5

3.0 SYSTEM APPLICATIONS . . . 3-1
  3.1 General Applications . . . 3-1
  3.2 Examples of Specific Applications. . . . 3-2

4.0 SYSTEM OVERVIEW . . . 4-1
  4.1 Edit Program. . . . 4-2
    4.1.1 Input Data Processed by CDS . . . 4-3
    4.1.2 Edits Performed by CDS. . . . 4-3
    4.1.3 Edit Error Messages. . . . 4-5
    4.1.4 CDS MOD File . . . 4-7
  4.2 Update Program . . . 4-8
    4.2.1 Update Actions to CDS . . . 4-9
    4.2.2 Update Cycle Steps . . . 4-9
    4.2.3 Update Report Messages. . . . 4-9
    4.2.4 The CDS Masterfile . . . 4-11
    4.2.5 Regional CDS Masterfile . . . 4-12
  4.3 Retrieval Program . . . 4-13
    4.3.1 Description of Reports Available from Retrieval Program . . . 4-14
    4.3.2 Retrieval Steps . . . 4-17

5.0 DATA SUBMISSION PROCEDURES. . . . 5-1
  5.1 Submission Steps . . . 5-1

6.0 DATA INPUT PREPARATION . . . 6-1
  6.1 General . . . 6-1
  6.2 Adding New Records to the CDS Masterfile . . . 6-5
    6.2.1 Sample of a Completed Coding Sheet for a New Facility . . . 6-11
  6.3 Changing Data on the CDS Masterfile . . . 6-14
    6.3.1 Sample Completed Coding Sheet for Change Transactions . . . 6-16
  6.4 Deleting Data from the CDS Masterfile . . . 6-17
    6.4.1 Sample Completed Coding Sheet for Delete Transactions . . . 6-19
  6.5 Keypunch Instructions. . . . 6-20

TABLE OF CONTENTS (Cont.)

SECTION PAGE

7.0 EDIT PROCESSING . . . 7-1
  7.1 Edit Program Usage . . . 7-1
    7.1.1 Warning and Fatal Errors . . . 7-2
  7.2 Edit Error Messages . . . 7-2
  7.3 Sample CDS Edit Report . . . 7-5
  7.4 Edit Job Control Language (JCL) . . . 7-7

8.0 UPDATE PROCESSING . . . 8-1
  8.1 Update Program Description . . . 8-1
  8.2 Update Report . . . 8-3
  8.3 Update Report Messages . . . 8-4
  8.4 Update Scheduling . . . 8-8
  8.5 Update Status Log . . . 8-9
  8.6 Update Report Job Control Language . . . 8-11

9.0 RETRIEVAL PROCESSING . . . 9-1
  9.1 Reports Available from the Retrieval . . . 9-2
    9.1.1 Quick Look Report . . . 9-3
    9.1.2 Double Spaced Quick Look Report . . . 9-5
    9.1.3 Source Data Report . . . 9-8
    9.1.4 Milestone Report . . . 9-10
    9.1.5 Questionnaire Report . . . 9-12
    9.1.6 Action Summary Report . . . 9-14
    9.1.7 Compliance-Action Report . . . 9-14
  9.2 Check List for Request Submission . . . 9-16
  9.3 Preparing Retrieval Selection Cards . . . 9-18
    9.3.1 Special Considerations for Pollutant Compliance Retrievals . . . 9-28
    9.3.2 Pollutant Compliance Logic Selection . . . 9-29
    9.3.3 Pollutant Compliance Sorting . . . 9-30
    9.3.4 Printing Pollutant Compliance Data . . . 9-31
    9.3.5 Sample of a Filled in Retrieval Request . . . 9-32
  9.4 Job Control Language for Using Retrieval Program . . . 9-37
  9.5 Retrieval Edits Performed by System . . . 9-37

10.0 SUPPORTIVE TECHNICAL INFORMATION . . . 10-1
  10.1 Table Processing . . . 10-1
    10.1.1 County Code Table . . . 10-1
    10.1.2 Personnel Code Table . . . 10-6
    10.1.3 Action Table . . . 10-7
    10.1.4 Results Code Table . . . 10-9
    10.1.5 Other Table Lookup Procedures . . . 10-11
    10.1.6 CDS Masterfile Layout . . . 10-11
  10.2 Backup and Recovery Procedures . . . 10-12
    10.2.1 User Responsibility for Backup . . . 10-12
    10.2.2 National Responsibility for Backup . . . 10-13

6

TABLE OF CONTENTS (Cont.)

SECTION		PAGE
10.2.3	Recovery Procedures	10-13
10.3	Computer Program Modification	10-13
11.0	NATIONAL GUIDANCE MATERIAL	11-1
11.1	CDS Input Preparation via WYLBUR	11-2
11.2	Form Reporting	11-8
11.3	CDS Coding Guidance	11-11
11.3.1	Coding Card 3	11-15
11.3.2	Coding Related to Continuous Monitoring	11-19
11.3.3	Coding Related to New Source Review and PSD	11-21
11.3.4	Coding Instructions for Power Plant and Industrial Boilers	11-26
APPENDIX		
A	CDS DATA ELEMENT DESCRIPTION	A-1
B	CONTACT LIST OF CDS USERS	B-1

LIST OF FIGURES

FIGURE PAGE

4-1 Edit Program Flow Chart. 4-6

4-2 Update Flow Chart. 4-10

4-3 Masterfile Hierarchy 4-13

4-4 Retrieval Flow Chart 4-18

6-1 CDS Input Card Layouts 6-3

6-2 Sample Coding Sheet. 6-4

6-3 Sample of Completed Coding Sheet for a 6-12
New Facility

6-4 Sample Of Completed Coding Sheet for 6-18
Change Transaction

6-5 Sample of Completed Coding Sheet for 6-21
Delete Transactions

7-1 CDS Edit Report. 7-6

7-2 CDS Edit Job Control 7-9

7-3 Using the Edit's Dummy Option. 7-10

7-4 Input From Tape. 7-11

7-5 Saving the Reject File 7-12

7-6 Printing the Reject File 7-13

7-7 Input to CDS Via Wylbur. 7-14

8-1 Update Report. 8-5

8-2 CDS Update Log 8-10

8-3 CDS Update Report Job Control. 8-12

9-1 Sample Quick Look Report 9-6

9-1A Sample Quick Look Report with Data Suppression . 9-6A

9-2 Sample Double Spaced Quick Look Report 9-7

9-3 Sample Source Data Report. 9-9

9-4 Sample Standard Milestone Report 9-11

LIST OF FIGURES (Cont.)

FIGURE PAGE

9-4A Sample Variable Milestone Report 9-11A

9-5 Sample Questionnaire 9-13

9-6 Sample Action Summary Report 9-15

9-6A Sample Compliance-Action Report 9-15A

9-7 Retrieval Request Form 9-19

9-8 Sample Quick Look Request 9-33

9-8A Sample Quick Look Request 9-33A

9-9 Sample Standard Milestone Request. 9-34

9-9A Sample Standard Milestone Request. 9-34

9-10 Sample Questionnaire Request 9-35

9-11 Sample Action Summary Request 9-36

9-12 Retrieval Job Control. 9-38

9-13 Retrieval Edit Report. 9-43

10-1 County Code Table 10-3

10-2 Sample Personnel Table 10-6

10-3 Sample Action Table 10-8

10-4 Sample Results Code Table 10-10

10-5 CDS Masterfile Layout. 10-11A

11-1 Collecting Retrieval Test 11-5

11-2 Preparing Load & Go 11-6

11-3 Using Retrieval Output for Load & Go 11-7

11-4 Job Control for CDS/FRS Link 11-10

11-5 Action Type for PSD and NSR 11-24

11-6 Sources Subject to PSD Requirements 11-25

LIST OF TABLES

TABLE PAGE

6-1 Keypuch Instructions 6-22

6-2 Keypunch Instructions for Card Type 1. 6-23

6-3 Keypunch Instructions for Card Type 2. 6-24

6-3A Keypunch Instructions for Gary Type 3. 6-25

6-4 Keypunch Instructions for Card Type 5. 6-26

6-5 Keypunch Instructions for Card Type 7. 6-27

6-6 Keypunch Instructions for Card Types 4, 6, and 8 . 6-28

7-1 Edit Error Messages. 7-3

8-1 Update Error Messages 8-6

9-1 Retrieval Package Edits 9-39

9-2 Retrieval Package Error Messages 9-41

11-1 Card 3 Format 11-18

11-2 Source Classification Codes (Partial list) . . . 11-29

1.0 INTRODUCTION

This Compliance Data System (CDS) Users' Manual is designed to be the primary source of user documentation regarding CDS. It replaces previous documentation, which should be discarded.

The Manual is organized to be used effectively by several groups of potential readers:

Managers and others wishing a basic description of CDS should read Sections 2 and 3, Management Overview and System Applications.

Current Users who generally understand CDS will wish to skip to specific sections of interest, particularly Sections 7 and 9, Edit Processing and Retrieval Processing, which reflect recent changes.

New Users may wish to read the text in its entirety, at least through Section 9, to obtain a working knowledge of CDS.

Those preparing Input Data should read Section 6, Data Input Preparation.

From time to time, revisions to the Users' Manual will be issued. It is important that these revisions be entered and the old material discarded, as the new sections will reflect major changes.

The Authors of the Manual wish to thank the National Data Bank Coordinator (Franklin Smith) and other members of the DSSE and EPA region Offices who provided valuable assistance. Comments and suggestions should be directed to Franklin C. Smith at 202-755-0103.

2.0 MANAGEMENT OVERVIEW

The Compliance Data System (CDS) was developed for the Division of Stationary Source Enforcement (DSSE) by The Research Corporation of New England (TRC). The primary purpose of CDS is to assist the Environmental Protection Agency in carrying out its enforcement and surveillance programs.

CDS provides users with an effective tool for managing large quantities of non-parametric stationary source information in an efficient and expeditious manner. The system can store, update, and retrieve large quantities of data describing the compliance status and the enforcement activities of all major and many minor sources of stationary air pollution. Output reports from the system enables management to: (1) Maintain a complete inventory of facilities emitting regulated pollutants, (2) Assess enforcement strategies, (3) Monitor state and regional enforcement activities, and (4) measure compliance and enforcement progress.

2.1 Background History

CDS was developed by TRC for the Division of Stationary Source Enforcement in 1972 to assist EPA's Regional Offices in implementing their enforcement programs. The primary objective of EPA's stationary enforcement program is to bring about compliance with Federal and State emission requirements as stated by the State Implementation Plans (SIP), the New Source Performance Standards (NSPS), and the National Emissions Standards for Hazardous Air Pollutants (NESHAPS). State Agencies and EPA's Regional

Offices have coordinated their efforts to develop an enforcement management system which will ensure compliance with the emission limitations for all regulated pollutants.

CDS has been in operation for nearly four years. Experience with the system has led to modifications and refinements of CDS which are described in detail in this documentation. During the three years of regular production runs, CDS has grown into a system widely used by all ten regions.

2.2 System Purposes

Regional offices are using CDS in a number of ways in their enforcement programs. CDS is used primarily for the following reasons:

1. Provide an accurate and easily-accessible inventory of facilities subject to federal and state emission regulations and their compliance status with respect to these regulations.
2. Develop enforcement strategies by providing summaries of the compliance status of facilities tracked by CDS.
3. Provide a means for tracking numerous federal, state, and local enforcement actions both for historical purposes and for future scheduling purposes.
4. Assist the region in the preparation of various national reporting requirements.
5. Provide various turnaround reports to be used by states in fulfilling their reporting requirements to the region.

CDS is not designed to store large quantities of parametric emission data; instead, it is a management information system for tracking compliance and enforcement information in an easily-accessible manner. In effect, CDS is an automated tickler file which provides both historical and current record keeping capabilities.

2.3 System Capabilities

CDS provides users with the capability to store, update, and retrieve information about all of the facilities placed on the CDS Masterfile. CDS is used to record information on identified major polluters; it provides information about the compliance status of these facilities; and it helps to track the enforcement actions taken by regulatory agencies against these facilities.

Eight different punched card formats are used to enter data into CDS via the Edit Program. On each of these card formats there are a number of data elements nationally defined and controlled; there are also a number of data elements which can be defined according to each regional user's needs. Since CDS can accommodate both types of data, it is a highly flexible system able to meet both national and regional needs.

The Update Program uses each of the different input card formats to add, change, or delete information on the CDS Masterfile. Once data is placed on the CDS Masterfile, the Retrieval Program can be used to create a wide variety of management reports based on the data on the Masterfile.

CDS's retrieval capabilities are highly flexible. Users can obtain reports based on all data on the CDS Masterfile or on only that portion of the data which meets user selection criteria. There are four fixed-format reports as well as one flexible format report which can be designed to fit any particular user requirements. Once a user has determined which report format will fit his needs and has determined what portion of the Masterfile he wishes to include on the report, he can specify the sorting criteria for his report. Thus, the data can appear in any desired sequence. Because of this flexibility, CDS has been able to adapt easily to changing reporting requirements.

2.4 System Functions

A number of computer programs have been developed to input, update, and retrieve CDS data. These computer programs as well as all associated data files are available at the EPA central computer facility. Currently, this facility is operated by Computer Network Corporation (COMNET). All regional users have computer terminals connected via telephone lines to COMNET's computers.

Input transactions prepared by regional users can be transmitted at any time to the central computer facility. Once there, transactions are validated by the Edit program. Valid transactions are stored for further use in the Update Cycle, and an Edit Report showing the Edit's action on each input transaction is returned to the user's terminal once the computer has executed the Edit program. Under normal operating conditions, one hour turnaround is available for the data submission procedure utilizing the CDS Edit.

Users may submit CDS input data via the Edit any number of times in between runs of the Update Cycle. At the central computer site edited data is stored for use by the Update. Under normal operating conditions, the Update Cycle is scheduled by the national Data Bank Coordinator (DBC) to run once a week on Wednesday nights. All valid transactions saved since the last Update are applied to the CDS Masterfile.

The Update adds, changes, or deletes data on the Masterfile based on each transaction's Update Code. The Update produces an Update Report to show what action it took on each transaction. Because of computer hardware limitations, the Update cannot automatically send each regional user's Update Report to the appropriate computer terminal. After each update cycle for which the user had input data, the user must request his own region's Update Report, as described in Section 8.

Once data has been applied to the CDS Masterfile by the Update, users may request management reports via the Retrieval. The Retrieval extracts, sorts, and prints data from the most current version of the CDS Masterfile. Requests for retrievals may be made as often as necessary. Under normal operating conditions, quick turnaround is available for short retrievals.

Regional users are responsible for data submission and retrieval requests. The national DBC is responsible for scheduling update cycles and for maintaining adequate backup and security for computer programs and files stored at the central computer facility.

2.5 System Relationship to Other EPA Systems

Although CDS has a coding structure compatible with a number of EPA systems and can accept input data prepared by related systems, it is basically an independent management information system.

The inventory of facilities in CDS should correspond to the facilities registered in the National Emission Data System (NEDS). NEDS contains parametric emission data for sources of air pollution; CDS contains compliance and enforcement data for facilities. CDS uses the NEDS facility numbering for a majority of its facilities and the SAROAD geographic codes for all of its facilities. In addition, the NEDS source number is carried as a retrievable data element on all CDS facilities.

A number of state systems are compatible with CDS. Some of the states using the Enforcement Management System (EMS) or a state version of CDS have a converter program which reformats EMS data to meet CDS input specifications. With the EMS-to-CDS Converter, compliance and enforcement information from a state is placed directly into CDS with little data input preparation needed on the part of the region. However, the region is still required to perform the review functions necessary to verify the accuracy of the reported data.

3.0 SYSTEM APPLICATIONS

CDS is a management information system designed to track large quantities of compliance and enforcement information for stationary sources of air pollution. With the flexible retrieval capability, CDS can produce reports for a wide variety of users.

3.1 General Applications

A great deal of information must be readily available to those responsible for conducting a successful enforcement program for stationary sources of air pollution. Management must be able to:

1. Identify those sources of pollution which are affected by federal, state or local emission regulations. CDS provides an inventory of these facilities and a fast retrieval capability for details about them.
2. Develop counts of various types of facilities which are in compliance, out of compliance, and of unknown compliance status with state, local and federal regulations. CDS provides both milestone (summary) reports and listings of facilities falling into the various compliance categories.
3. Monitor a wide variety of enforcement actions. CDS can track enforcement actions scheduled into the future and also it can provide an historical record of actions scheduled or achieved in the past.
4. Prepare special reports. With the retrieval capability, CDS can be used to prepare special reports based on Standard Industrial Class (SIC) codes, on New Source Performance Standards, or on any other criteria based on user needs.
5. Coordinate with state and local enforcement programs. In some states, enforcement and compliance information can be fed directly from the state into CDS. In all states, CDS can provide highly effective turnaround documents used by states for providing the region with new or additional enforcement information.

6. Anticipate future enforcement requirements. CDS has a great deal of built-in flexibility, and also it is being constantly upgraded to meet current and anticipated user requirements.

3.2 Examples of Specific Applications

Once a regional user has an accurate inventory of his region's facilities registered on the CDS Masterfile, he can obtain a wide variety of management reports. The following is a partial list of some specific user needs met by CDS:

- o CDS can produce a milestone report showing the number of major facilities determined to be in compliance with SIP standards or scheduled increments of progress by state, or other geographic breakdown.
- o CDS can produce lists of all major sources of air pollution. Listings can be broken down by a wide variety of criteria, such as major/minor, compliance status code, attainment/non-attainment, federal/non-federal, etc. Sub-totals and totals can be developed on any user-selected criteria.
- o CDS can identify sources inspected by regional and/or state personnel in both attainment and non-attainment AQCR's.
- o CDS can list the enforcement actions taken, or about to be taken, by the EPA to ensure compliance in both attainment and non-attainment AQCR's.
- o CDS can be used to track a large number of actions, such as formal inquiries (114 Letters), field surveillances, notices of violation, abatement orders, etc. Once a region has determined what actions it wishes to track in CDS, CDS can provide users with a history of past actions and also a schedule of actions to be performed.
- o CDS can be used to prepare milestone reports and lists of facilities subject to SIP regulations, NSPS regulations and NESHAPS regulations.
- o CDS can be used to prepare industry studies or summaries based on the Standard Industrial Class Code (SIC) or the Standard Classification Code (SCC) for certain processes.

The types of reports that CDS can generate in aiding management in its enforcement activities is virtually limitless. Once a user has determined what his information needs are, he can use a large number of both fixed format and user-defined data elements as input to the system. After the data has been placed on the CDS Masterfile, the user can select, sort, and format the data on the Masterfile according to his needs.

In one retrieval, sources can be selected by State, AQCR, City, and/or County, industrial category, emission size, pollutant, SIP regulation number, federal or non-federal facility, compliance status or any combination of retrievable data elements. The user, by matching the selection criteria which he has chosen, could get a Source Data Report which provides all data stored in the system. This might include compliance information with respect to all applicable SIP regulations for all emission points within the facility. Or, since such an extensive report is seldom needed by program managers except perhaps for special studies, he could request a Quick Look Report to obtain a concise listing of sources displaying only a few pieces of needed information. For example, if he needs to have a list of major sources of air pollution within a particular State or AQCR, he could get a Quick Look Report which displays each of these facilities and information he wants to know such as name, location, or compliance status, on a single line. The program manager can quickly scan the list to obtain his desired information.

The process of obtaining compliance information is long and tedious. The number of point source facilities in a State may range from as few as 10 to over 1,000. Data is subject to constant change. With the help of CDS, the initial data base can be established and future processing will be simplified since needed reports can be generated quickly, and since only new or changed information need be entered or updated.

Inspections, legal actions, monitoring of compliance schedule progress, and other agency actions are reported to Region Offices by the State. These actions are entered into the CDS data base and may be summarized by State, AQCR or any other basis for review by Regional management. In addition, Compliance Schedules may be entered into the data base in their entirety, including events which are scheduled for the future. CDS can print out a Quick Look Report for the State giving the current status of Compliance and listing actions scheduled to occur during a reporting period. The report can be formatted as a means for State reporting on the schedule status or as a means of monitoring of State scheduled enforcement.

Besides monitoring State progress in assuring that sources meet schedules, CDS can be used to overview State inspection programs for sources already in Compliance. Reporting can be accomplished in the same way as reporting on Compliance schedules. If, for example, a State is committed to inspecting major facilities at least once a year, the Regional Office can periodically send the State a CDS listing of those facilities scheduled for inspection. The State would indicate on the printout whether or not the inspection actually was conducted. Reporting on source tests and other actions can be handled in the same manner.

CDS can also print out a special list of facilities of unknown Compliance status. A State can be sent a printout for further information on the listed sources. If the State does not provide the information in the requested reporting time, EPA can use the same list to initiate a field inspection program to resolve the Compliance status.

CDS can be used to follow-up on sources out of Compliance. CDS can provide a printout of the problem facilities. EPA can then assign a priority ranking to these facilities for future actions.

When an order is issued by EPA or a court, follow-up is essential to ensure that the required steps in the order are achieved. CDS's tracking system can be used for monitoring State Compliance schedules to relieve Program Managers of the burden of increasing numbers of Enforcement actions.

Activities which must be tracked include the issuance of Section 114 letters, the issuance of notices of violations, the follow-up of enforcement orders, and the performance of source tests and conduct of periodic inspection. CDS can assist Program Managers in assuring that these activities are being carried out in an orderly, effective manner. For example, if he wants to know the workload facing his staff during a coming month, the Program Manager can obtain a CDS report on all EPA actions scheduled during the month. This could be a listing of all Section 114 responses, the number of scheduled conferences, the number of inspections due, the persons responsible for these inspections, and any other scheduled actions which have been input to the system. With this information he can readily see what manpower requirements are already committed for the month and can plan other activities accordingly.

4.0 SYSTEM OVERVIEW

The Compliance Data System provides regional users with the ability to store, update, and retrieve large quantities of data necessary for running an enforcement program. To meet these objectives, CDS has been designed to perform three distinct functions: edits, updates, and retrievals.

Regional users are responsible for preparing data for CDS in order to maintain an up-to-date Masterfile. Data preparation involves both coding of information and the preparation of turnaround documents which can be used by state and local enforcement agencies. Once input data has been updated, regional users are responsible for the preparation of all retrieval requests from the system.

National headquarter responsibilities include the following:

- o Developing and maintaining all CDS programs, data sets, and table values.
- o Scheduling all update cycles.
- o Providing definition and usage of all nationally controlled data elements.
- o Establishing retrieval guidelines for meeting national reporting requirements.
- o Providing user training for any region requesting training.
- o Responding to regional requests for system modifications.
- o Coordinating state data input procedures, especially with the EMS-to-CDS Converter.

The following paragraphs describe the edit, update, and retrieval functions; subsequent sections of this manual will describe in detail the operational usage of the computer programs which perform these functions.

4.1 Edit Program

Stationary source data is initially processed for the Masterfile by the CDS Edit Program. Regional users gather data concerning stationary sources of air pollution and then prepare this data in a format acceptable to the Edit Program. There are eight fixed card formats available to the user for preparing data as input transactions to the Edit Program. Whenever the user has a sufficient amount of data to be submitted, he initiates the Edit Program by submitting the keypunched input transactions together with the appropriate Job Control Language to his region's computer terminal.

The Edit Program examines every input transaction prepared for the system and produces an Edit Report for each Edit Program that is run. If an input transaction has no edit error messages next to it on the Edit Report, it is a valid transaction. Transactions in error will have one or more edit error messages next to it on the Edit Report. Errors are identified as either "Warning" or "Fatal".

The Edit Program stores all valid transactions on a MOD File until the next scheduled Update Program. One or more fatal errors will prevent a transaction from being saved for the Update Program. A transaction with only warning errors will be saved for the weekly update, but the data elements in error are blanked out.

The Edit Program can be run as often as necessary in between update cycles. Each time that the Edit is run, an Edit Report is immediately produced and sent to regional users for review.

4.1.1 Input Data Processed by CDS

Data is input to the Edit Program on punched cards or 80 character card images on tape or disk. There are eight fixed card formats, described in detail in Section 6, that are validated by the Edit Program. These cards provide the following general information:

- o Cards 1 and 2 provide facility (source) level data for this system.
- o Card 3 provides pollutant compliance data for the facility.
- o Card 4 is a facility comment record which provides additional information about the source.
- o Card 5 provides descriptive emission point data for various pollutants.
- o Card 6 is a point comment record which provides additional information for a given emission point.
- o Card 7 describes specific enforcement actions for a given emission point.
- o Card 8 is an action comment record which provides additional information for an action record.

4.1.2 Edits Performed by CDS

The CDS Edit Program examines and validates all input transactions processed on the seven fixed card formats. Errors are classified as either "Warning" or "Fatal" and will appear on the right side of the Edit Report next to the transaction containing the error. Warning errors will have one asterisk preceding the error message; for example, *INVALID POLLUTANT CODE. Fatal errors will have three asterisks preceding the error message; for example, ***INVALID STATE CODE. The data element in error will have asterisks directly beneath it on the Edit Report printout line. A transaction with multiple errors will have multiple error messages.

If an input transaction has no edit error messages next to it on the Edit Report, it is a valid transaction and will be stored on the MOD File for processing in the next Update Cycle. One or more fatal errors next to a transaction will cause the transaction to be rejected by the Edit Program. Consequently, a transaction with one or more fatal errors will not be stored on the MOD File for processing by the Update Cycle. A transaction with only warning errors will be acceptable and stored on the MOD File, but the data elements in error will be blanked out.

Each card type has its own validation procedure within the Edit Program. Certain data elements, such as County Code, AQCR, Action Type, Results Code, and Personnel Code are validated by external table look-up procedures. To make a new code valid for any of these data elements, the national DBC must update the appropriate table so that it will contain the new value. Other data elements, such as Region, State, Compliance Status, Emission Category, etc., are validated by internal computer tables. These edits can be changed only by changing the Edit Program logic. Only the national DBC has the authority to change these edits.

Although the Edit examines all input transactions for possible keypunching and coding errors, the program has its limitations. The Edit cannot detect valid but incorrect Update Codes; only the Update Program can determine whether it is possible to add, change, or delete a record on the CDS Masterfile. The Edit cannot detect certain errors caused by punching data into the wrong card columns; if a valid date is placed in the Date Achieved columns, but the user meant to place the value in the Date Scheduled columns, the Edit will accept the data element as valid.

Even those transactions containing no Edit Errors should be examined by new users to make sure that they are preparing data for the system properly.

Figure 4-1 is a flow chart of the Edit Program. Input to the Edit consists of the various input card formats together with the appropriate Job Control Language needed to run the program. During the program, a number of external table files are used for validating changeable data elements, such as Action Type. There are four outputs from the program:

- o The Edit Report.
- o The MOD File containing all valid input transactions. With each run of the Edit, additional valid transactions are stored here until the update cycle applies these transactions to the Master-file.
- o An Edit Log showing statistics, such as cards input, cards accepted, and cards rejected. These numbers are printed at the end of the Edit Report.
- o An optional Error File containing all records with fatal errors. This file may be placed on a WYLBUR data set for correction by those users familiar with WYLBUR usage.

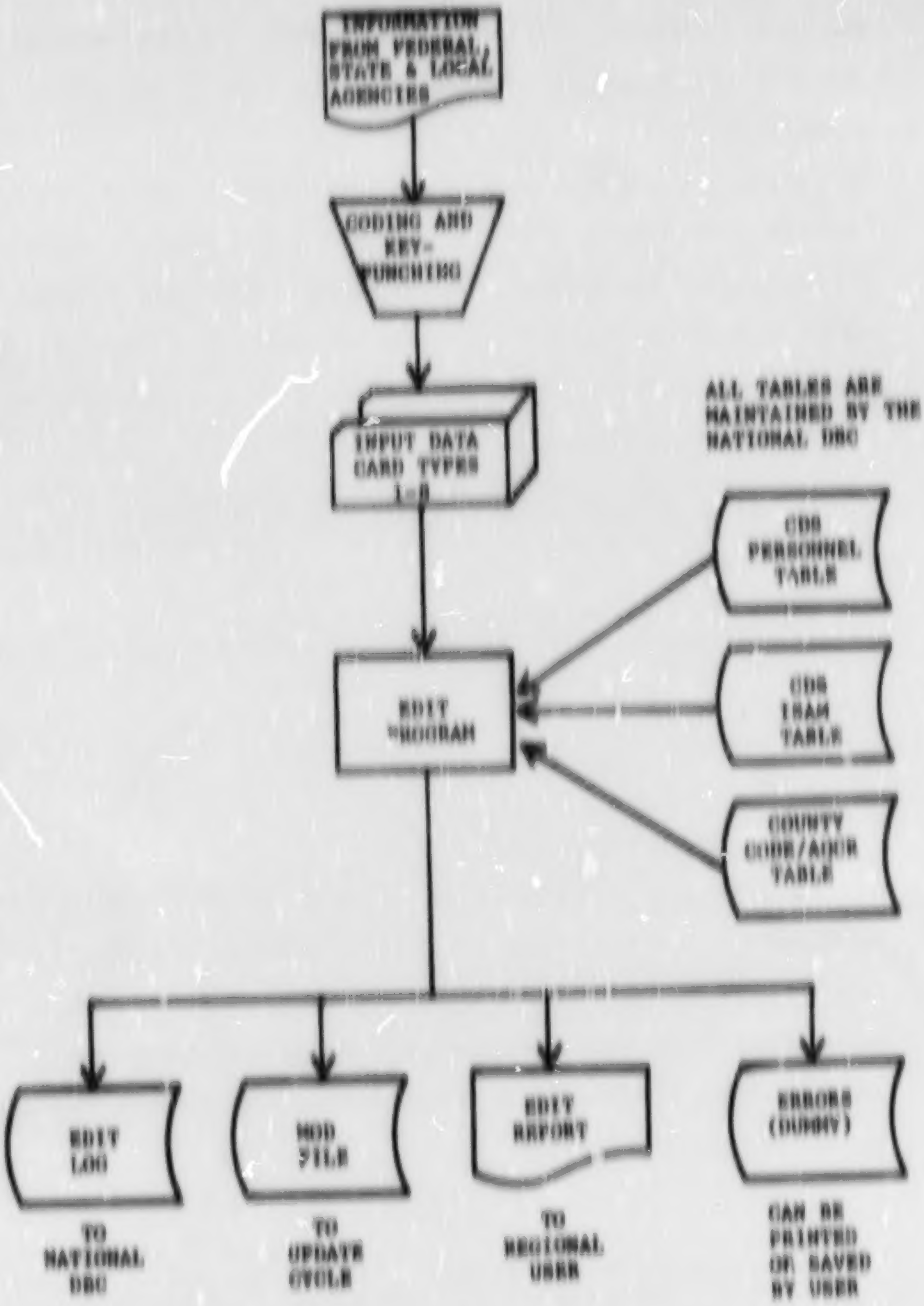
4.1.3 Edit Error Messages

The Edit Program identifies the two kinds of errors, warning and fatal, made on the seven fixed card formats submitted as input data transactions. An error message describing the cause of the error will appear on the right hand side of the Edit Report preceded by one or three asterisks as explained in Section 4.2.2. Typical error messages are listed below.

FATAL	WARNING
*** INVALID STATE CODE	* SIC CODE SHOULD BE NUMERIC
*** LINE NUMBER MUST BE NUMERIC	* INVALID SIP CODE
*** DO NOT DELETE 000	* INVALID POLLUTANT CODE

FIGURE 4-1

EDIT PROGRAM FLOW CHART


INFORMATION FROM FEDERAL, STATE & LOCAL AGENCIES
CODING AND KEY-PUNCHING
INPUT DATA CARD TYPES 1-8
ALL TABLES ARE MAINTAINED BY THE NATIONAL DRC
CDS PERSONNEL TABLE
CDS ISAM TABLE
COUNTY CODE/ACCR TABLE
EDIT PROGRAM
EDIT LOG
MOD FILE
EDIT REPORT
ERRORS (DUMMY)
TO NATIONAL DRC
TO UPDATE CYCLE
TO REGIONAL USER
CAN BE PRINTED OR SAVED BY USER

Valid values which can be entered on the card formats for each data element are listed in Appendix A. Each Data Element Sheet lists the appropriate coding values and coding considerations necessary for preparing card formats and for making corrections.

4.1.4 CDS MOD File

The CDS MOD File resides on a disk storage device. Input transactions validated by the Edit Program are saved on this file for use by the weekly update cycle. At the end of the update cycle, the data on the MOD File is erased to make room for input transactions for the next update cycle. As Edit Programs are run by the numerous regional users, transactions with non-fatal errors are added to this file. Any number of data submissions may be made to the Edit in between one update cycle and the next. Each submission adds additional data to the MOD File. At the beginning of the next update cycle, the data on the MOD File is copied to magnetic tape. Then the transactions on the file are sorted into Region, State, County, Source, Point, and Action Number order. Within this major sort key, transactions are also sorted by Update Code and by chronological order. For transactions with the same record ID (Region, State, County, Source, Point, and Action Numbers), delete transactions are applied first, then new transactions, and finally change transactions. For transactions with the same record ID and the same Update Code, transactions are applied chronologically.

In the past, only the last input submission via the Preliminary Edit would reach the Update since each input submission overlaid the previous input submission. With the MOD File, input transactions do not overlay previous submissions; instead, input transactions are added to the file and are saved until the update cycle.

Once a transaction has been added to the MOD File, it is no longer necessary to resubmit the transaction again when additional transactions are being submitted for the same update cycle. However, the user should keep input transactions on cards or other information storage devices for at least one month for security and backup purposes.

4.2 Update Program

The CDS Masterfile is updated once a week by the Update Program. All transactions stored on the MOD File by the various runs of the Edit Program are processed by the Update Program. This is usually scheduled to run once a week on Wednesday nights by the national Data Bank Coordinator (DBC). Input to the update is the old (preceding week's) Masterfile and the week's input transactions placed on the MOD File by the Edit Program from all regional users. Output from the Update is an updated Masterfile and ten regional Update Reports.

Once the update cycle is complete, each regional user who had input data for the Update Program must request his regional Update Report. This report shows what action the Update Program took on each transaction passed to it by the various Edit runs. Whenever the Update Program cannot perform the add, change, or delete transaction specified by the user, a reject message will explain why the transaction was not applied to the Masterfile.

4.2.1 Update Actions to CDS

Card types 1 through 8 processed by the Edit Program are used to add, change or delete information on the CDS Masterfile. The Masterfile contains records which correspond to the input card types. Input transactions perform the following functions:

NEW	When an Update Code "N" is used in the Update Code Column, the input transaction will add a new facility, point, action, or comment record to the CDS Masterfile.
CHANGE	The Update Code "C" is used to change one or more data elements on an existing Masterfile record.
DELETE	The Update Code "D" is used to delete one or more Masterfile records for a given facility.

4.2.2 Update Cycle Steps

In addition to applying input transactions to the CDS Masterfile, a number of other steps are taken in each update cycle:

- o Input transactions from the MOD File are saved on tape.
- o Input transactions are sorted into the same sequence as the Masterfile.
- o A number of table lookups are performed during the Update.
- o The CDS Masterfile is copied to ten regional disk Masterfiles.
- o The MOD File transactions are erased to make room for the next cycle's input transactions.

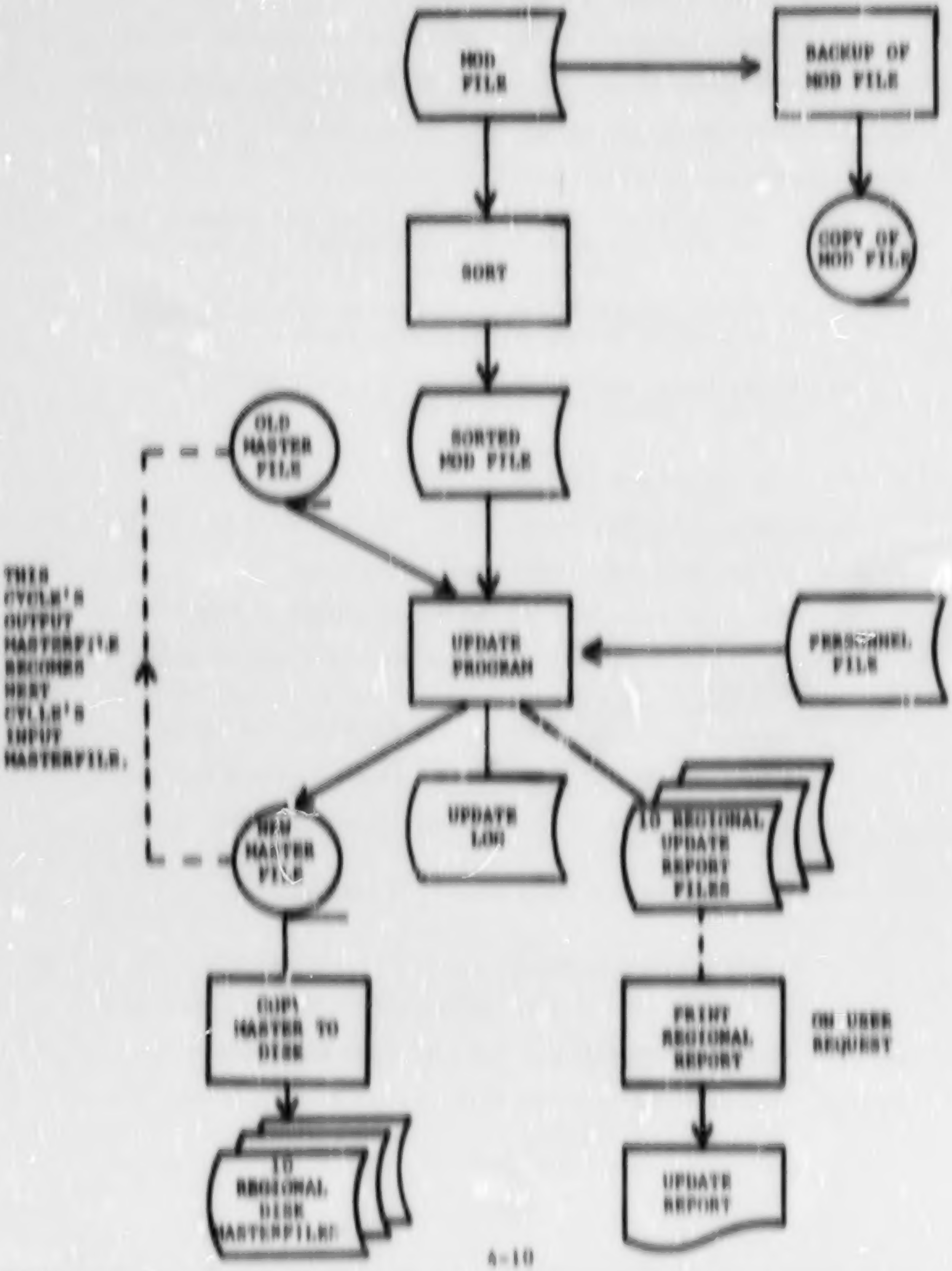
Figure 4-2, Update Flow Chart, shows this process.

4.2.3 Update Report Messages

On the Update Report there are two column headings, Update Action and Error Message, which indicate what action has been taken by the Update Program on each transaction passed by the Edit. A normal Update

FIGURE 4-1

UPDATE FLOW CHART


MOD FILE
BACKUP OF MOD FILE
COPY OF MOD FILE
SORT
SORTED MOD FILE
OLD MASTER FILE
THIS CYCLE'S OUTPUT MASTERFILE BECOMES NEXT CYCLE'S INPUT MASTERFILE.
UPDATE PROGRAM
PERSONNEL FILE
NEW MASTER FILE
UPDATE LOG
10 REGIONAL UPDATE REPORT FILES
COPY MASTER TO DISK
PRINT REGIONAL REPORT
ON USER REQUEST
10 REGIONAL DISK MASTERFILES
UPDATE REPORT

Action Message is ADDED, CHANGED, or DELETED and indicates a successful Update Action. The word REJECT in the Update Action Column indicates that the Update Program could not perform the appropriate add, change or delete as indicated in the Update Code column. For each rejected transaction, there is a diagnostic error message printed out under the Error Message column.

Typical Update Error Messages are listed here.

- SOURCE NOT ON FILE
- POINT NOT ON FILE
- DUPLICATE TRANS
- ALREADY ON MASTERFILE.

When an ampersand appears in the Error Message column, it indicates that multiple changes have been applied to the Masterfile in chronological order. A complete listing of Update Error Messages and their causes is given in Section 8.

4.2.4 The CDS Masterfile

The CDS Masterfile resides on magnetic tape. It contains data for stationary sources of air pollution for each of the ten EPA regions using CDS. Over 34,000 facilities exist on the Masterfile. For each facility there are a number of Masterfile records containing facility, emission point, action, and comment information. Data from each card type is placed on one of six Masterfile record formats. These Masterfile record formats are numbered 20, 21, 34, 35, 46, 47 for internal computer identification purposes. The six Masterfile record formats contain the following general information:

- Record 20 contains facility level data from Cards 1 and 2. Each facility has one Record 20. Region, state, county, and source numbers identify a unique facility.

- Record 21 contains comment information for the facility record. Up to ten comments may be used for each facility. Each Card 4 added to the Masterfile creates a corresponding Record 21.

- Record 30 is the pollutant compliance record. One of these records is present whenever card 3 input is submitted to CDS. Data for up to 10 pollutants can be placed on this record.
- Record 34 is an emission point record created from the Card 4 input transaction. For a given facility there may be up to 1,000 emission points; each is identified by a sequential Emission Point Number. Emission Point 000 contains compliance data for the entire facility. The use of this special point is described in more detail in Section 3.
- Record 35 contains comment information for an emission point. Each emission point may have up to ten comments. Each card 6 added to the Masterfile creates a corresponding Record 35.
- Record 46 is an action record created from the Card 7. For a given emission point there may be up to 98 actions; each is identified by a sequential Action Number.
- Record 47 contains comment information for an action record. Each action may have up to 10 comments. Each Card 8 added to the Masterfile creates a corresponding Record 47.

Figure 4-3 shows the hierarchical relationship between the various masterfile record types.

4.2.5 Regional CDS Masterfile

In one of the last steps of the Update Program, the update CDS Masterfile is copied to create 10 separate regional Masterfiles, each of which resides on a disk storage device. Each of these files contains the most current version of the CDS Masterfile for only one region. All retrieval requests are based on the data contained on the regional Masterfiles.

Users should note that input transactions processed by the Edit are not retrievable until after the transactions have been applied to the regional Masterfiles by the update cycle.

4.3 Retrieval Program

The CDS Retrieval Program is used to prepare management reports based on the CDS Masterfile and was designed to meet the specific requests of regional users. All output reports, other than the Edit Report and the Update Report, are available on request from the Retrieval Program. These requests may be made at any time since they are processed independently of the Update Program. The Retrieval Program will produce the following management reports:

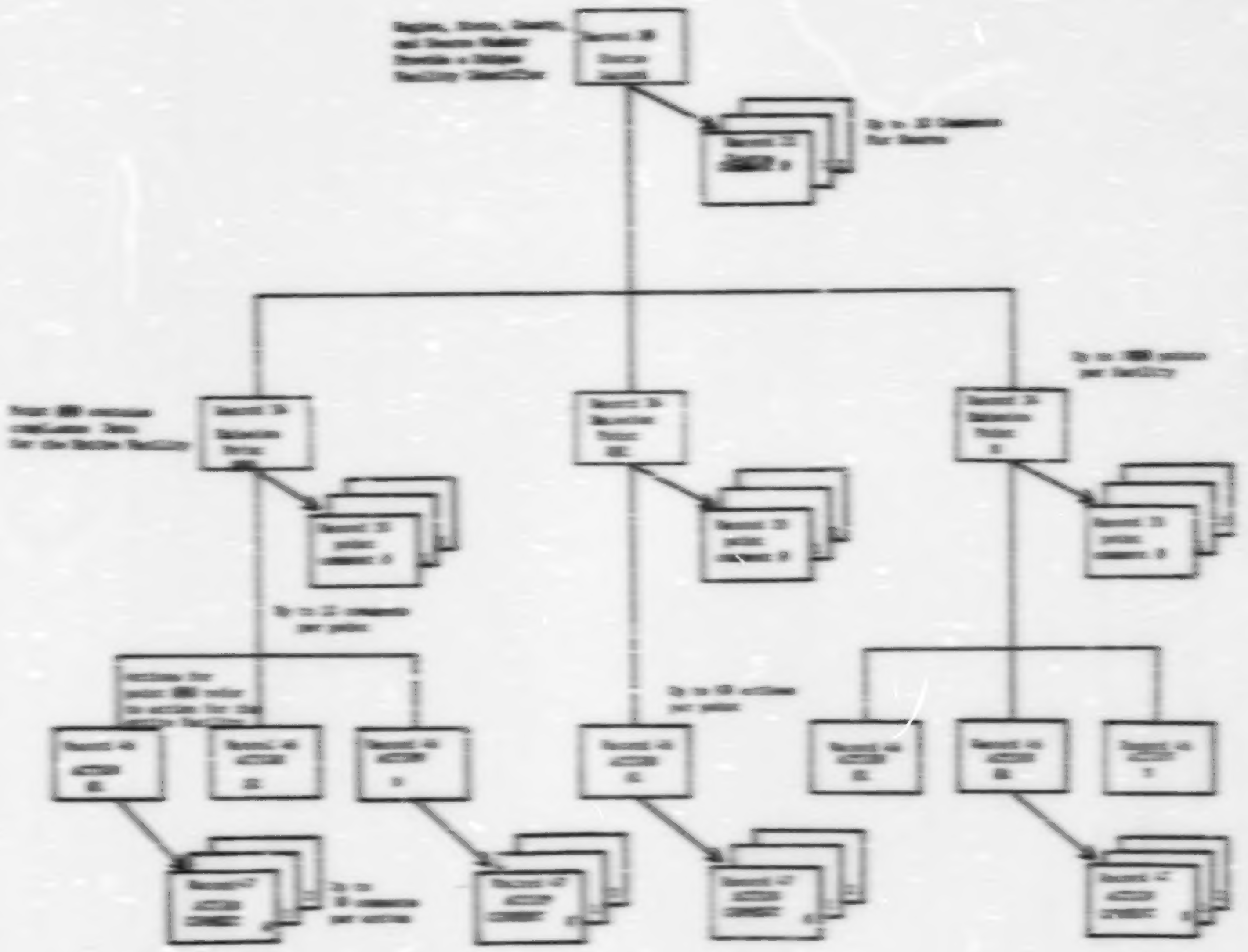
- Source Data Report
- Action Summary
- Questionnaire
- Milestone
- Quick Look Report
- Double Spaced Quick Look Report

4.3.1 Description of Reports Available from Retrieval Program

The retrieval capabilities of CDS are designed for maximum flexibility so that the user may design the output format to fit his own particular need. In addition, the amount of information retrieved for each source is also determined by the user to meet his needs. This section briefly describes the principal reports which Region Management can request from CDS. Complete details regarding content of the reports and the means to obtain them can be found in Section 9.

Quick Look Report

The Quick Look Report is designed to print only *some* data elements for selected sources whereas the Source Data Report is designed to print *all* data elements for selected sources. Although all the data for a selected source is valuable, report requirements can often be met with a short report which shows only a few user-selected data elements. For example, management may need a report showing only the name, address, and compliance status of all the major facilities within a state. With the Quick Look Report, a user can easily format a report which contains only name, address, and compliance status. Not only can users select via the Retrieval's selection logic what



[illegible]

[illegible]

facilities should appear on a report, but also they can select the data elements to be printed for these selected sources. Up to ten specified source, point and action data elements for a facility may be included on a single print line so long as this print line occupies 132 or fewer print positions.

Because of its flexibility and versatility, the Quick Look Report is the most commonly used CDS report format. It enables the user to see only those data elements which he needs to deal with a particular problem. The Quick Look Report can be used as a forecast report, a turnaround document, or whatever management report the user has a need for. This report can produce totals, subtotals, and pagebreaks as needed.

A variation of this report is the Double Spaced Quick Look which is identical to the Quick Look except that the user obtains double spacing. This feature is especially useful when the Quick Look is used as a turnaround document.

Because of space limitations, comment level data is not available on Quick Look reports.

Source Data Report

The Source Data Report is a complete listing of all data in the system regarding a specific facility. The report includes all facility, point, and action data for those facilities selected in the retrieval. In addition, comments at any of the three levels (facility, point, or action) are printed on the report. The Source Data Report can be sequenced in any user specified order such as Source Name, State, City, etc.

Action Summary Report

The Action Summary Report provides two lines of printed data about specific actions for which the user requires information. This report summarizes action data recorded on the Masterfile by Action Type. The user may vary the kind and amount of information printed on the report by his choice of selected criteria. For example, actions to be included on the report can be varied by dates. If a six-month period is selected, the actions summarized on the report will include only those which were scheduled during that period. The Action Summary Report can also be used as a turnaround document which can be sent to a State, filled in by the State, and then returned to the Regional Office.

Questionnaire Report

The Questionnaire Report was designed for Regional Offices to be used as a turnaround document. Its primary use is to show the status of various actions which are expected to be performed by a State within a specified period. Identifying data is printed on the Questionnaire which is then sent to the State Agency for completion. After the State returns the filled-in report, the data can be keypunched for re-entry into CDS to update the Masterfile.

Milestone Report

The Milestone Report is a statistical report which enables Regions to evaluate the progress and effectiveness of State Enforcement Programs. This report provides a tally of the compliance status code of selected emission points within a region based on the selection criteria specified on the input cards. This report can be used in conjunction with the Quick Look Report to substantiate the numbers on the Milestone Report. In this manner, the Milestone Reports provide Regional managers with a means to meet National reporting requirements.

Compliance-Action Report

The Compliance-Action Report summarizes the compliance status and enforcement actions for selected facilities on the CDS Masterfile. Source level information and compliance information is listed on one print line with the date achieved for the following actions:

- Inspections
- Notices of Violation
- Orders Issued
- Court Actions
- Terminations of NOV's

Because this report has been designed to meet specific enforcement action reporting requirements, all reportable totals are generated at the end of the report.

4.3.2 Retrieval Steps

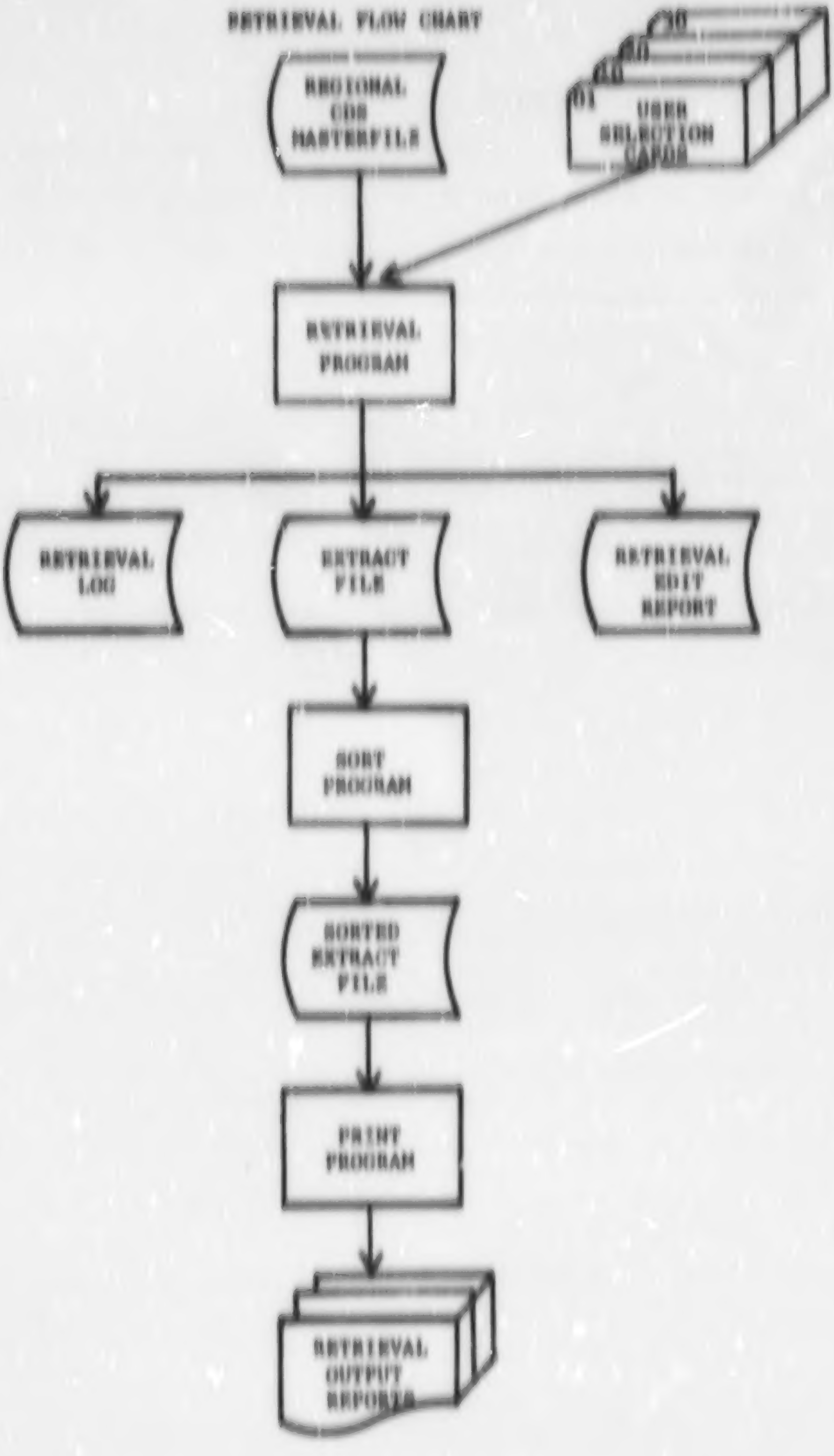
Each time a user requests a management report via the Retrieval, the following steps are taken by the various computer programs constituting the Retrieval:

- Retrieval selection cards are checked for validity. An Edit Report page is printed to show the logic used in preparing the Retrieval.
- CDS regional masterfile records which satisfy all of the user's selection criteria are placed on a temporary extract file.
- Extracted records are sorted into a user-specified sort order.
- Sorted records are formatted for printing into user specified print formats.

Figure 4-6, Retrieval Flow Chart, shows this process graphically.

FIGURE 4-4

RETRIEVAL FLOW CHART


REGIONAL CDS MASTERFILE
01
30
USER SELECTION CARDS
RETRIEVAL PROGRAM
RETRIEVAL LOG
EXTRACT FILE
RETRIEVAL EDIT REPORT
SORT PROGRAM
SORTED EXTRACT FILE
PRINT PROGRAM
RETRIEVAL OUTPUT REPORTS

5.0 DATA SUBMISSION PROCEDURES

5.1 Submission Steps

The following ten steps describe the procedures for using the Compliance Data System. These steps outline in chronological order a general summary of how CDS should be used by Regions. A detailed description of each step is provided in Sections 6, 7, 8 and 9.

1. **Prepare Data**. Fill out the appropriate coding sheets as described in Section 6.0. Have the coding sheets keypunched.

2. **Run the Edit Program**. After the CDS punch cards have been returned, prepare the appropriate Job Control Language (JCL) cards for running the Edit Program. The JCL for running the Edit is shown in Figure 7-2 on page 7-9. Submit the JCL and input punch cards to the computer. Submissions should be made on a priority basis since the Edit is inexpensive to run (approximately $2.00 per 1,000 cards with PRIORITY = 4). With a priority, the Edit will run prior to the update cycle, and thus the input data will be applied to the current week's update cycle.

   Since multiple runs of the Edit Program can be made in between update runs, experience indicates that it is best to submit data in several smaller batches during the week as soon as data is returned from keypunching.

3. **Examine Edit Report**. When the Edit Program is completed, the user must examine the Edit Report to determine if there were any edit errors on the input data. All transactions submitted to the Edit are listed on the Edit Report; transactions which are error-free have no error messages printed on the right hand column labeled "Error Messages". The format of the Edit Report is given in Figure 7-1 on page 7-6. It should be noted that the County Name generated by the Edit appears directly beneath the County Code for error-free Card 1 transactions with an Update Code "N".

   The Edit program identifies two types of errors, warning and fatal. Warning errors are identified on the report by an error message preceded by a single asterisk (such as "* INVALID STAFF CODE"). The Edit will blank out the data element in error but the transaction will be passed to the output MOD File for processing in the Update Cycle. One warning message is issued for each data element containing a non-fatal error.

Fatal errors are identified on the report by an error message preceded by three asterisks (such as "*** INCORRECT COUNTY CODE FOR STATE"). One or more fatal errors on a transaction will prevent that transaction from being placed on the MOD File, and consequently, the transaction will not reach the update cycle.

Table 7-1 gives a complete list of all errors identified by the Edit Program.

For both warning and fatal errors, asterisks are placed directly underneath the data element found to be in error. These asterisks are designed to identify the data element which needs to be corrected.

4. Correct Edit Errors. Once edit errors have been located on the Edit Report, they must be corrected and resubmitted in another run of the Edit Program. All errors should be coded, keypunched, and submitted to CDS by repeating steps 1, 2, and 3 described above. Keep in mind that all valid data from the previous run of the Edit Program are saved on the CDS MOD File. Once valid data has been accepted by the Edit, the data does not have to be resubmitted again. Only corrections and data not yet submitted to the Edit should be entered after steps 1, 2, and 3 have been performed.

5. The Update Cycle. All valid transactions submitted by the Edit in between update cycles are stored on the MOD File. Once a week, usually on Wednesday night around midnight, the valid transactions on the MOD File are applied to the CDS Masterfile by the Update Program. Because of this schedule, it is important for users to have all of their weekly input ready on or before Wednesday noon.

The scheduling and the maintenance of the update cycle is the responsibility of the national Data Bank Coordinator. Under unusual circumstances, the update cycle may be run more often than once a week. When holidays prevent a Wednesday night update cycle or when a special update cycle is scheduled, the national Data Bank Coordinator will inform all CDS users of the schedule change.

6. Verify Update Run. On Thursday morning, the user should verify that the update cycle has run successfully and that the Update Report is available for this Region. Figure 5-2 shows the data set retrievable via COMMET under the name CH.AM26.EPARNC.CDS.SYSOUT. This data set shows the date, the time, and the output serial number of the most recent update cycle. It shows which Regions participated in the update, and also it shows the number of transactions input to the update and the number of transactions accepted and rejected by the update for each Region.

7. Obtain the Update Report. If the user had data which was entered into the update cycle, then the user must request his Update Report by submitting the Update Report Job Control described in Figure 8-3. This must be done prior to the next update cycle.

8. Examine Update Report. The Update Report has one print line for each transaction sent to the Update Program by the Edit Program. Next to each transaction on the report there is an Update Action which shows that the transaction was either added, changed, deleted, or rejected from the CDS Masterfile. If the transaction was rejected, there will also be an error message explaining why the transaction could not be added, changed, or deleted. See Figure 8-1 for a sample Update Report.

9. Correct and Resubmit Update Errors. Transactions passing all of the validation routines of the Edit Program may still be rejected by the Update Program. The Update rejects all logic errors caused by an incorrect Update Code on the transaction; for example, the Update cannot apply a change transaction to a record which does not exist on the Masterfile. Table 8-1 shows the Update Error Messages generated by the Update.

   All errors appearing on the Update Report must be researched and recoded. Corrections should be resubmitted to CDS via the Edit Program.

10. Request Management Reports. CDS can produce the following management reports:

    o Quick Look Report
    o Milestone Report
    o Source Data Report
    o Questionnaire
    o Action Summary Report

    The user should consult Section 9 for the procedures to obtain the above reports.

6.0 DATA INPUT PREPARATION

6.1 General

All input data to the Compliance Data System (CDS) must be prepared in the format of one of the seven card layouts shown in Figure 6-1. These are the only formats that the system will accept. The data may be punched onto actual 80 column cards or prepared through special techniques such as COMNET or the NHS-to-CDS Converter.

Each card must have columns 1-19 (Region, State, County, Source, Point, Action Number, Card Code) and column 80 (Update Code) punched. The following data elements are unique for each card code:

	Card Code 1	Card Column
*	AQCR	20-22
	City Code	23-26
*	Facility Name	27-46
	Street Address	47-56
	Regional Data Element 1	67
	Regional Data Element 2	68
	Regional Data Element 3	69
	Regional Data Element 4	70-74
	Regional Data Element 5	75-79

	Card Code 2	Card Column
*	City Name	20-34
	Zip Code	35-39
	State Registration Number	40-54
*	NEDS Cross Reference	55-58
*	SIC Code	59-63
	Federal Facility Code	64
	Active/Passive Code	65
	Regional Data Element 6	67-76
	Staff Personnel Code	77-79

* These data elements should be filled in when a new transaction is being added to the Masterfile.

MULTIPLE-CARD LAYOUT FORM

Company: ____________

Application: CDS [illegible] LAYOUT by [illegible] Date MARCH 1976 Job No. ____ Sheet No. ____

CARD 1	Region State	County	Source	Point	Action#	Card code	AQCR	City Code	Source Name	Street Address	[illegible]	[illegible] 4	[illegible] 5	Update			
CARD 2	Region State	County	Source	Point	Action#	Card code	City Name	Zip code	State Registration Number	NEDRN	SIC	[illegible]	[illegible] 6	STAFF	Update		
CARD 3	Region State	County	Source	Point	Action#	Card code	Filler	Pollutant 1 Pollutant [illegible] Plus Loading Indicator	Pollutant 2 Pollutant [illegible] Plus Loading Indicator	Pollutant 3 Pollutant [illegible] Plus Loading Indicator	Facility Capacity	[illegible] 9	[illegible] 10	[illegible] 11	[illegible] 12	Filler	Update
CARD 5	Region State	County	Source	Point	Action#	Card code	SIC Code	[illegible]	PLUT	Federal/State/Local Regulation Number	[illegible]	Process Description	[illegible]	Update			
CARD 7	Region State	County	Source	Point	Action#	Card code	Optional Short Action Description	Filler	Act type	Date Achieved	Date Scheduled	Staff	Results	[illegible] 8	Filler	Update	
CARD 4,6,8	Region State	County	Source	Point	Action#	Card code Line #	Comments	Update									

Card Code 3	Card Column
Pollutant - ID	22, 34, 46
Delete Flag	24, 36, 48
Pollutant Compliance	25, 37, 49
Pollutant Emission Category	26, 38, 50
Pollutant Air Quality Maintenance Indicator	27, 39, 51
Pollutant Air Quality Control Indicator	28, 40, 52
Pollutant Loading	29-33; 41-45; 53-57
Facility Capacity	59-64
Regional Data Element 9	65-71
Regional Data Element 10	72-73
Regional Data Element 11	74-75
Regional Data Element 12	76

Card Code 4	Card Column
* Comment Line Number	20
Source Comments	21-79

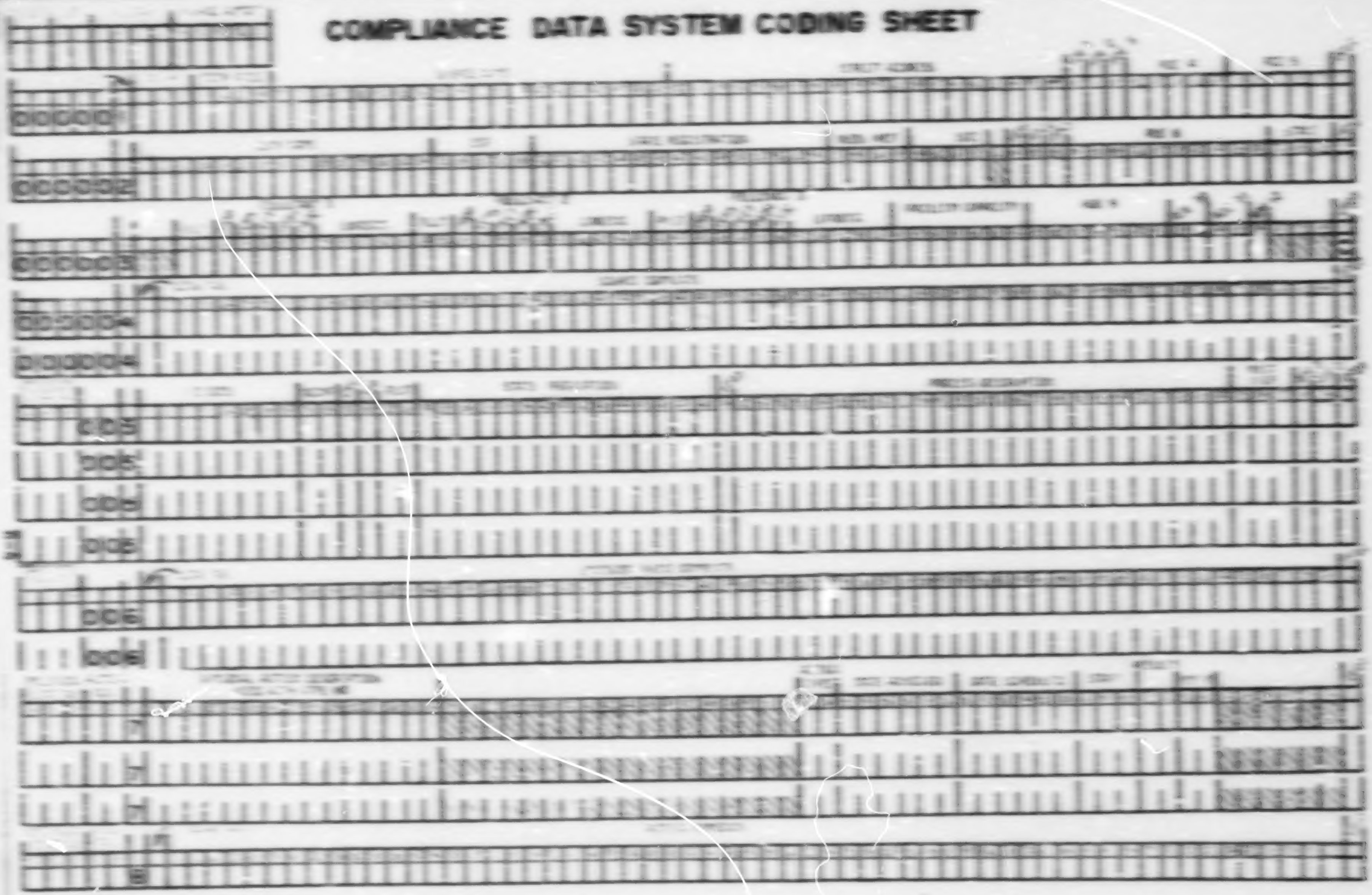
Card Code 5	Card Column
SCC Code	20-27
* NEDS Cross Reference	28-29
* Compliance Status	30
* SIP Code	31
* Pollutant	32-33
State Regulation Number	34-48
* Emission Category	49
Process Description	50-74
Multiple Cross Reference	75-77
Regional Data Element 7	78

Card Code 6	Card Column
* Comment Line Number	20
Point Comments	21-79

Card Code 7	Card Column
* Action Type	53-54
Date Achieved	55-60
* Date Scheduled	61-66
Staff	67-69
Results	70-71

Card Code 8	Card Column
* Comment Line Number	20
Action Comments	21-79

* These data elements should be filled in when a new transaction is being added to the Masterfile.



COMPLIANCE DATA SYSTEM CODING SHEET

FIGURE 6-2

SAMPLE CODING SHEET

Actual data preparation is performed using coding sheets or a special data entry form. Data preparation techniques will vary from one regional office to another, and a variety of input formats will be developed. A suggested entry form is shown in Figure 6-2. This form includes space for the entry of all seven card types. Some regions will develop forms for specific card type formats only, depending on the frequency of specific types of input data.

A complete Data Element Description which lists CDS data names, values, edit error messages, and coding considerations for each card type is given in Appendix A. Some of this information is included in the following description but not in detail, so the user is urged to familiarize himself with the complete listing provided in Appendix A.

The sections which follow describe the specific procedures to be followed to add, change, or delete records on the CDS Masterfile. The first step in adding a new record to the CDS Masterfile is to code an input transaction with an Update Code "N" in column 80 for each card type needed to create a Masterfile record. Once a record has been added as new, a transaction with an Update Code "C" can be used to change the record or a transaction with an Update Code "D" can be used to delete the record.

6.2 Adding New Records to the CDS Masterfile

Card Type 1 with an Update Code "N" is used to add a new facility to the Masterfile. To establish a new facility on the Masterfile, perform the following steps:

1. Request a Quick Look Report with the CDS Retrieval Package to verify that the facility being added is not already on the Masterfile.

2. Select a County Code/Source Number combination which will identify the facility by a unique number. The NEDS source numbering convention should be used wherever possible when adding a new source. Otherwise, assign the next highest sequential Source Number within the county. A County Code name corresponding to the County Code Number is generated by CDS when a new Card 1 is submitted.

3. Code columns 1-19 (Region, State, County, Source Number, Point, Action Number, and Card Type) and the Update Code "N" in column 80. Region, State, County, and Source Number together identify a unique facility in the CDS system.

4. Code Source Name, columns 27-46. If additional data elements unique to Card Type 1 (See Appendix A) are available, they should also be entered at this time.

5. Additional card types with the same source identifier may be added for this update cycle or for a subsequent update cycle as new transactions.

Card Type 2 is used to add additional source level data to the Masterfile. Card 2 can be entered with an Update Code N only when it is being entered at the same time as a new Card 1. If any field on Card 2 is entered at a later date, use Update Code C. Update Code N on Card 2 is valid only when Cards 1 and 2 are entered at the same time since the Card 2 is not used to create a Masterfile record. Perform the following steps to add a new Card 2:

1. Code columns 1-19 (Region, State, County, Source Number, Point, Action Number, and Card Type) and the Update Code "N" column 80.

2. Code columns 20-34 (City Name) and columns 59-62 (SIC codes). If additional data elements unique to Card 2 (see Appendix A) are available, they should also be entered at this time. If a Staff Code is placed in columns 77-79, a Staff Name associated with this Staff Code will be generated on the Masterfile.

Card Type 3 is used to add or change pollutant compliance data on the CDS Masterfile. In order to support the FY 78 program plan requirements to develop adequate SIP's for TSP, SO_2, HC, CO, and NO_x in non-attainment air quality control areas, the CDS system must carry a number of new data elements which indicate worst-case compliance for each pollutant produced by a facility contributing to the non-attainment status of an AQCR. The pollutant information on the Card 3 replaces the functions of AIR2 and NDR1 as non-attainment indicators.

Card 3 data must be coded for all SIP sources impacting or of unknown impact on non-attainment standards. Both major (Class A) and minor (Class B) sources contributing to the non-attainment status of an AQCR must have Card 3 information for all regulated pollutants they emit. It is not enough to code in only the non-attainment pollutant(s). However, unregulated pollutants or pollutants not emitted by the facility should not be entered.

For each pollutant produced by a facility in a non-attainment AQCR, the following data elements have been added to CDS:

Data Field	Length	Coding Considerations
Pollutant ID	2	Must be coded for each pollutant produced by the facility. Valid values are the same as for PLUT.
Pollutant Compliance	1	Must be coded for each applicable pollutant. This compliance status should represent the worst-case compliance of all the emission points producing that particular pollutant. Valid values are the same as for CMST.

Data Field	Length	Coding Considerations
Pollutant Emission Category	1	Must be coded for each applicable pollutant. Valid values are the same as for ECAT. This field must represent the potential uncontrolled emissions for the pollutant.
Air Quality Maintenance Indicator	1	May be coded for facilities affecting AQMA standards as defined in 40 CFR, Section 52.22 entitled, "Maintenance of National Standards". Code "Y" if source is located within an AQMA. Otherwise leave blank.
Impacted AQCR Indicator	1	Must be coded as follows: a. Leave blank if the facility does not contribute to the non-attainment status of the AQCR for this pollutant. b. Code 'N' if the facility impacts the emission standards for this pollutant in a non-attainment AQCR. c. Code 'N' if the impact of this pollutant on the non-attainment status of the AQCR is unknown.
Pollutant Loading	5	May be coded. If it is used, it must be a numeric field representing actual tons per year.

To enter pollutant compliance data on the CDS Masterfile, users should code card columns 1-18 to match the data used for Cards 1 and 2 for a given facility. Column 19 must be a '3' and Column 20 must be 'C' for adding, changing, or deleting pollutant data. Because a facility can produce numerous pollutants, the input punch card has room for three sets of pollutant data. Multiple Card 3's may be used to enter pollutant compliance data for facilities producing more than three different pollutants. Up to ten different pollutants may be stored on the Masterfile for one facility. The order in which pollutant data is entered into the system is not important for the five pollutants subject to SIP regulations; PT, SO_2, HC, CO, and NO_x are always stored on the CDS Masterfile in the same order. Other pollutants are stored on the Masterfile in the order in which they were input.

In addition to pollutant data, the Card 3 contains four new source level regional data elements and it also contains Facility Capacity. Facility Capacity is a seven-digit field used to indicate the output capacity of a plant. The following units of measurement should be used:

a. For general processes, use tons per year of output product. If a facility produces over 10 million tons per year, code all 9's in this field.

b. For refineries, use barrels of petroleum processed per day.

c. For petroleum storage facilities, use thousands of barrels total capacity.

d. For incinerators (sewage sludge or municipal refuse), use tons per day.

e. For electric utilities, use total megawatt capacity.

Users should note that pollutant data on the Card 3 may be entered many times since it is a repeating data element. However, Facility Capacity and RDE9-RDE12 are not repeating data elements. Only one value for each of these data elements can be stored on the CDS Masterfile at one time. If several Facility Capacities are coded on multiple Card 3's for a facility during one update cycle, only the value on the last card will be placed on the CDS Masterfile.

See Table 6-3A for a complete list of all data elements on the Card 3. Refer to the appropriate pages of Appendix A for detailed definition and guidance on each individual data element on the Card 3.

Card Type 4 is a comment card used to add additional information about a facility which is different from the information supplied by the data elements on Card Types 1 and 2. There are 10 comment line numbers available on Card Type 4; up to 10 comments may be used to add information for each facility. New comments may be processed at the same time or after a Card Type 1 for a facility is added to the Masterfile. However, a source comment cannot be added to the Masterfile unless the source record already exists on the Masterfile.

1. Code columns 1-19 (Region, State, County, Source Number, Point, Action Number, and Card Type) and Update Code "N" in column 80.
2. Code comment information in columns 21-79. Assign comment line numbers (column 20) sequentially starting with number one or zero. If a facility has been previously added to the Masterfile, request a Source Data Report for that facility to determine what line numbers have already been used. A Card Type 4 comment must have a valid line number. The update code N can be used only when the comment line number is not on the Masterfile. Keep in mind that comments are not retrievable and cannot be printed on a Quick Look Report.

Card Type 5 is used to add emission point data for each pollutant emitted by a facility. For each facility, there can be up to 1,000 emission points. Point 000 contains compliance status and emission category information for the entire source. A point 000 transaction can be entered into the CDS with an Update Code "N" only at the same time that Card Type 1 is entered as new. If point 000 is not added with a new

Card Type 1, the system will generate this point number automatically. Consequently, point 000 information added to the Masterfile after Card Type 1 has been added must use an Update Code "C" in column 80.

1. Code columns 1-19 (Region, State, County, Source Number, Emission Point Number, Action Number, and Card Type) and the Update Code "N" in column 80. An emission point cannot be added to the Masterfile unless a corresponding source record is being added or has been added previously to the Masterfile.

   Emission point 000 is reserved for the entire source. All other emission point numbers are assigned sequentially starting with 001. When one physical emission point (process) needs several emission point numbers (one for each pollutant or regulation), use the Multiple Cross-reference field (Card 5, columns 75-77) to tie together the various emission point numbers to one physical emission point.

   When adding new additional point numbers for a facility, request a Source Data Report for that facility to make sure that the new point number does not already exist on the Masterfile.

2. Columns 30-33, Compliance Status, SIP Code, and Pollutant, should be coded if information is available at the time Card Type 5 is prepared. Compliance Status must be coded for point 000; SCC must be coded for all other points. If additional data elements unique to Card 5 (See Appendix A) are available, they should also be entered at this time.

Card Type 6 is a comment card used to add additional information about an emission point which is different from the information supplied by the data elements on Card Type 5. There are 10 comment line numbers available on Card Type 6; up to 10 comments may be used to add information. A point comment cannot be added to the Masterfile unless a corresponding emission point already exists on the Masterfile.

1. Code columns 1-19 (Region, State, County, Source Number, Point, Action Number, and Card Type) and the Update Code "N" in column 80.

2. Code comment information in columns 20-79. Assign comment line numbers (column 20) sequentially starting with number one or zero. If an emission point has been previously added to the Masterfile, request a Source Data Report for that facility to determine what line numbers have already been used. A Card Type 6 comment _must_ have a valid line number. The update code N can only be used when the comment line number is not on the Masterfile.

Card Type 7 is used to add information describing actions taken by the local, state, or federal regulatory agencies. Each region is responsible for defining the actions which will be tracked by CDS. Regions should assign a two-position Action Type corresponding to each action. The central Data Bank Coordinator maintains a table which relates the Action Type to the Action Description.

1. Code columns 1-19 (Region, State, County, Source Number, Point, Action Number, and Card Type) and the Update Code "N" in column 80.

   Action Numbers (columns 17-18) should be assigned sequentially starting with 01. When adding only one new action number to the Masterfile, Action Number 99 could be coded into columns 17-18. The system will convert 99 to the next highest sequential action number for that emission point. When several actions are added for a given point, a Source Data Report for that facility must be requested to determine which action numbers already exist on the Masterfile.

   New action numbers cannot be added to the Masterfile unless the emission point for that action is also being added to the Masterfile or has been added during a previous cycle. Each action number must be associated with a specific emission point.

2. Code columns 53-54 and 61-66, Action Type and Date Scheduled. Consult the regional action table for Action Type. If necessary, call the central Data Bank Coordinator to add or change values on the action table. When entering scheduled and achieved dates, enter them in month, day and year format.

3. Code additional data elements unique to Card Type 7 (See Appendix A) if they are available.

Card Type 8 is a comment card used to add additional information about an action which is different from the information supplied by the data elements on Card Type 7. There are 10 comment line numbers available on Card Type 8; up to ten comments may be used to add information. New action comments may be processed at the same time that a new action record is added to the Masterfile. However, an action comment cannot be added to the system unless there is a corresponding action record already in the Masterfile.

1. Code columns 1-19 (Region, State, County, Source Number, Point, Action Number, and Card Type) and Update Code "N" column 80.

2. Code comment information in columns 20-79. Assign comment line numbers (column 20) starting sequentially with number 01 or zero. If an action has been previously added to the Masterfile, request a Source Data Report for that facility to determine what line numbers have already been used. A Card Type 8 comment must have a valid line number. The Update Code N can be used only when the comment line number is not already on the Masterfile.

6.2.1 Sample of a Completed Coding Sheet for a New Facility

Figure 6-3 is a sample coding sheet used to enter a facility for the first time on the Masterfile.

COMPLIANCE DATA SYSTEM CODING SHEET

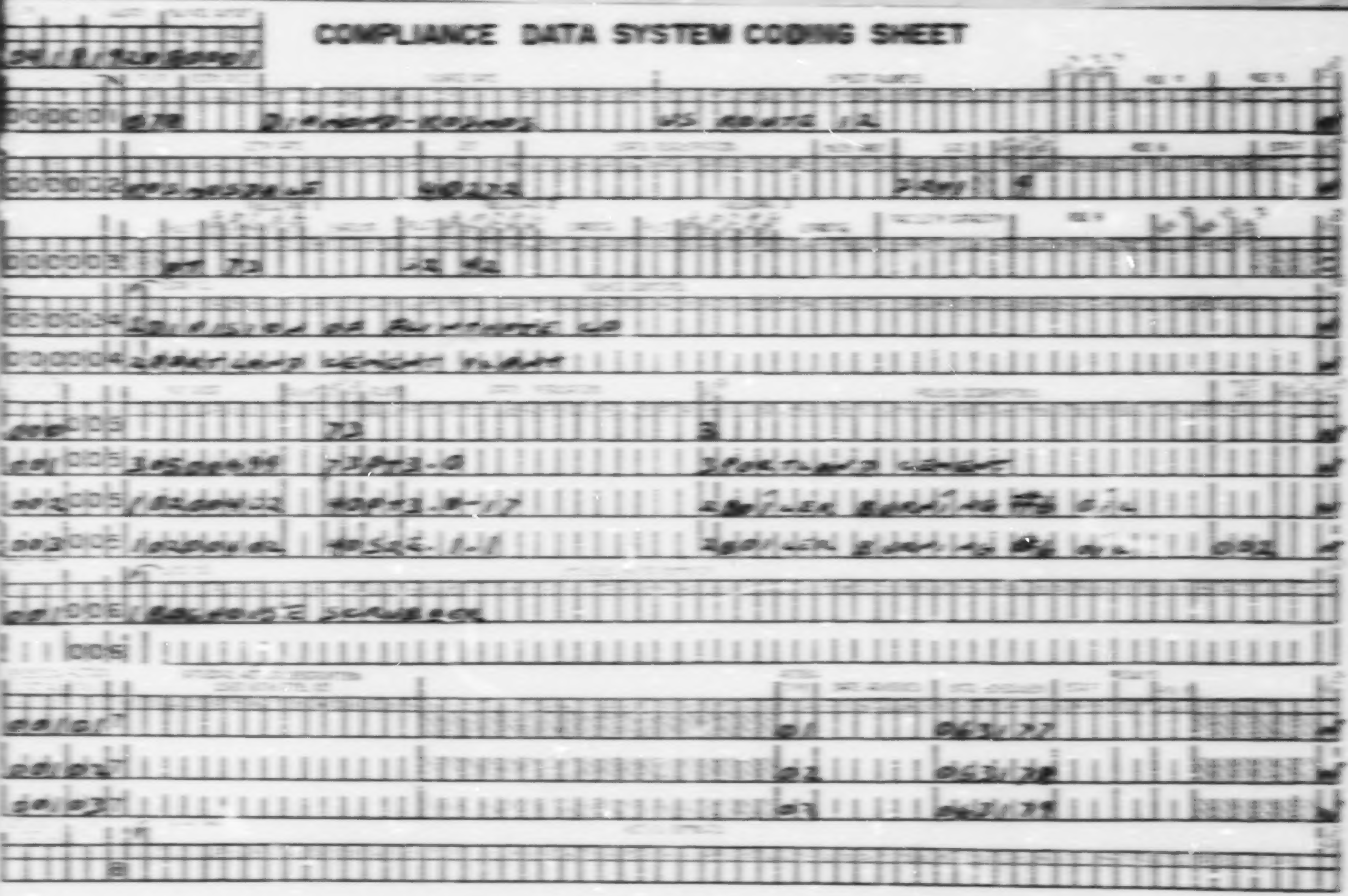


FIGURE 6-3

SAMPLE OF COMPLETED CODING SHEET FOR A NEW FACILITY

Card columns 1 through 13 are the same for all cards for this facility; these columns need to be coded only once at the top of this coding sheet. Zeros in columns 14 through 18 are preprinted on the coding sheet for Cards 1 through 4. For the Card 1, only columns 1 through 19, columns 26 through 46 (Source Name) and column 80, Update Code, must be coded for a new facility. This is the minimum amount of information which will establish the facility on the Masterfile. Other information for this facility is also available, so it is coded in the appropriate card type and card columns.

If the emission point 000 data were not available at this time, the Update Program would generate an emission point 000 record on the Masterfile for this facility. However, the emission point 000 can be coded as new when it is entered at the same time as the new Card 1. In this example the Compliance Status and the SIP Codes for point 000 are the same as for point 001 since the Compliance Status and the SIP Codes of the entire source represent the weakest compliance status of any of the other emission points.

In this example, emission points 002 and 003 represent two different regulated pollutants being emitted from the same smokestack. The 002 in the Multiple Cross-reference field (columns 75-76) for emission point 003 indicates that emission point 003 represents another regulated pollutant for the same process described in emission point 002.

Actions are entered at this time with a date scheduled but no date achieved since they represent actions to be performed in the future.

6.3 Changing Data on the CDS Masterfile

Once a record has been added to the CDS Masterfile by the update cycle, data on the Masterfile record can be changed in subsequent update cycles by using input transactions with an Update Code "C".

During a given update cycle, transactions with the same record identifier (Region, State, County, Source, Point, Action Numbers and Card Type) are applied in Update Code order. The Update Program processes deletes first, then adds, and finally changes. The Update will reject a change transaction other than a Card 1 if a delete or a new is being applied for the same card type during the same update cycle. However, the Update will process multiple changes for an existing Masterfile record. Multiple changes are applied in chronological order; if a given data element is being changed by several input transactions, all input transactions are printed out on the Update Report, but only the latest change will be found on the Masterfile.

All change transactions must have a "C" in the Update code column 80. The Edit program no longer accepts the Update Code "R" which was previously used. In addition, no automatic record generation will be performed by using the Update Code C with a Card 7.

Card columns 1-19 and 80 must be coded when preparing a change transaction. However, the data elements in columns 1-19 cannot be changed by processing as a change transaction. If transactions with incorrect State, County, Source, Point, or Action Numbers have been added to the CDS Masterfile, those records in error must be deleted and the corrections re-entered with an Update Code "N". When any of the data elements in columns 20-79 need to be changed, only the data element that needs changing is coded on the input coding sheet.

The following steps should be performed for a change transaction:

1. Request a Source Data or Quick Look Report for that facility to determine what data values exist on the Masterfile.

2. Decide what data elements need to be changed and decide what card type should be used.

3. Code columns 1-19 on a coding sheet. Code a "C" in column 80.

4. Code only those data elements which need changing. The update program will change only those data elements that are entered on the card; other data elements on the Masterfile will not be changed.

5. Have coding sheets keypunched and submit punchcards to the CDS Edit Program.

6. Use a Change transaction, and not a Delete transaction, to remove one or more data elements from a Masterfile record. Data elements in columns 20 through 79 of any card type can be blanked out by placing one or more asterisks (*) in the data element which is to be eliminated. An asterisk will remove only the data element to be blanked out and will not change any other data element on the Masterfile record for that card type. On the Card 7, an asterisk on Date Scheduled or on Date Achieved will zero-fill the data element since these data elements cannot be blanked out. An asterisk cannot be used to change any data elements in card columns 1 through 19; if a record with an incorrect State, County, Source Number, Point, or Action Number has been placed on the Masterfile, the incorrect data must be deleted with an Update Code "D" and the corrected cards re-entered with an Update Code "N".

   Since asterisks are used on change transactions to blank out a data element, asterisks may not be used on new transactions. A warning message (* ASTERISKS FOR CHANGES) is issued by the Edit Program if asterisks are found on any transaction with an Update Code "N". Asterisks are not placed on the Masterfile in the update cycle.

7. An Update Code C should be used for adding or changing pollutant data on a Card 3. A delete transaction is not valid for a Card 3. If a user wishes to delete all references to a pollutant on the Masterfile, he should code the appropriate pollutant code followed immediately by a 'D' in the Pollutant Delete Flag on the Card 3.

If a user wishes to blank out one or more data elements associated with a pollutant on a Card 3, he should place one or more asterisks (*) in the field to be blanked out. Because data is stored on the masterfile by pollutant code on a Card 3, changes to Pollutant Compliance Status or other pollutant related fields must always be accompanied by a Pollutant Code.

Users may make changes to the Pollutant Compliance Status of several pollutants regardless of the order in which this data was originally entered; all changes and adds are applied by pollutant.

6.3.1 Sample Completed Coding Sheet for Change Transactions

Once a facility has been entered as new on the CDS Masterfile, change transactions can be entered for records existing on the Masterfile. Columns 1 through 19 must be the same on the change transaction as they were on the new transaction already on the Masterfile; column 80 must be a "C" for each change transaction.

Figure 6-4 is a sample coding sheet used, to change some of the data input as new in Figure 6-3; it is also used to add new records which were not created in Figure 6-3.

Card 4, line 2, a source comment exists on the Masterfile with the following text: PORTLAND CEMENT PLANT. A change for Card 4, line 4, will replace this text with the text on the change transaction: PO BOX 753.

Card 5, point 000, contains a "7" in the Compliance Status Code on the Masterfile. The change transaction will replace the Compliance Status Code and the Process Description; all other data on the Masterfile record will be unchanged. On Card 5, point 001, only the Compliance Status Code will be changed on the Masterfile.

Since point 002 did not have any comments associated with it, comment 1 for point 002 is entered as new.

Action 01 for point 001 has no Date Achieved or Results Code on the Masterfile; a change transaction will add these two fields to the Masterfile record created during a previous update cycle.

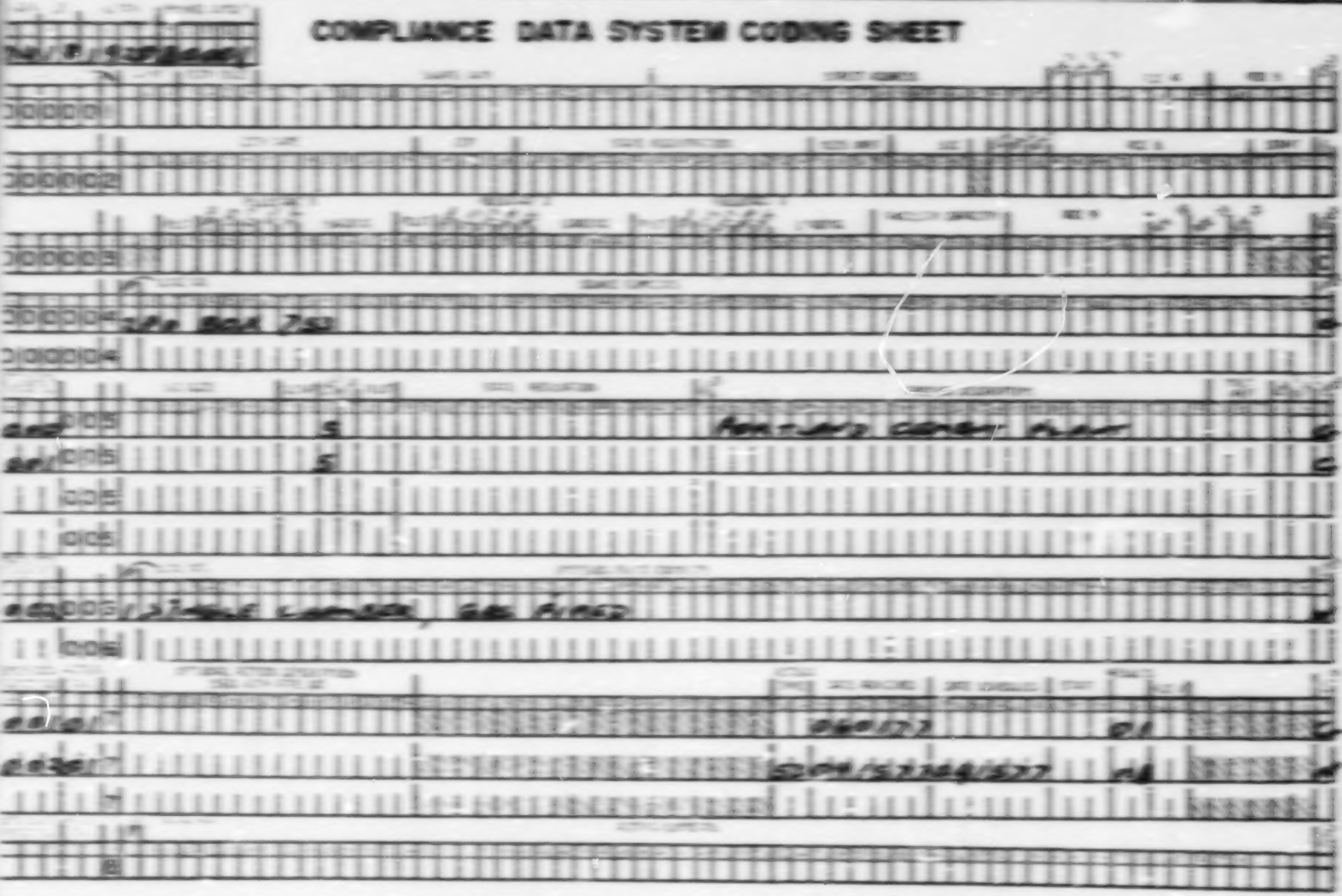
Point 002 did not have any actions on the Masterfile. Thus, an action 01 is added with an Update Code "N".

6.6 Deleting Data from the CDS Masterfile

A delete transaction contains a "D" in column 80, the Update Code; it is used to delete one or more records from the Masterfile. A Card 1 delete will remove all Masterfile records for a given facility. A Card 5 delete will remove one emission point together with all associated comments, actions, and action comments. A Card 7 delete will remove one action together with all associated action comments. A Card 4, 6, or 8 delete will remove one comment. A Card 2 or a Card 3 delete is invalid. Remember that if only some of the data elements on a particular card type are to be deleted, a "C" must be entered in column 80 and asterisks placed in these fields. A "D" in column 80 will delete the entire card type.

1. Deleting an Entire Source, Card 1. An entire source can be deleted by using a Card Type 1 with an update Code "D". Fill in columns 1-19 and code a "D" in column 80. Do not fill in columns 21-79; in order to reduce the possibility of keypunch errors, no data may be coded in these columns. Before submitting this card, make certain that all the information on the source is no longer needed. This transaction will delete the entire source and all related points, actions, and comments.

2. Deleting an Emission Point, Card 5. Fill in columns 1-19 and place a "D" in column 80. Do not fill in columns 21-79; no data is to be added to these columns. An emission point delete will remove the emission point, all associated emission point comments, actions, and action comments. A Card 5 delete for point 000 is invalid.



COMPLIANCE DATA SYSTEM CODING SHEET

[illegible]

[illegible]

3. **Deleting an Action, Card 7.** An action record can be deleted by using a Card 7 with an Update Code "D". Fill in columns 1-19 and place a "D" in column 80. Do not fill in columns 21-79; no data is to be added to these columns. An action delete will remove the action record along with associated action comments.

4. **Deleting a Comment, Cards 4, 6, and 8.** A source, emission, or action comment may be deleted by using the appropriate Card Type 4, 6, or 8 and placing a "D" in the Update Code. This is a new capability in the system and does not require the use of asterisks. Columns 21-79 must be blank. Card column 20 must contain the line number of the comment to be deleted. A comment delete transaction will delete only one comment record.

   Use Card 4 to delete a Source comment;
   Card 6 to delete a Point comment;
   Card 8 to delete an Action comment.

5. **Deleting a Pollutant.** Once a pollutant record has been established on the Masterfile by a Card 3 transaction, it cannot be deleted unless the entire source is deleted. However, all references to any particular pollutant can be deleted by placing a D in the Pollutant Delete Flag. If all data for a pollutant is to be deleted, only the Pollutant Code and the Pollutant Delete Flag may be coded for that particular pollutant.

   On one Card 3 transaction it is possible to delete all data for one pollutant, change some data for another, and add new data for a third pollutant.

   Once a pollutant has a D in the Pollutant Delete Flag, that pollutant and all related data will not appear on any output reports. After a pollutant has been deleted, it may be reactivated by entering new data for it.

   By preventing users from deleting the entire Pollutant Record, the danger of accidentally losing data for many pollutants is eliminated. Coding errors can still be corrected, and unwanted data will never appear on any output report.

6.4.1 Sample Completed Coding Sheet for Delete Transactions

Masterfile records may be deleted from the Masterfile by placing the same numbers in columns 1 through 19 as the new transaction used to establish that record on the Masterfile. When an Update Code "D" is placed in column 80, no other data may be coded in columns 21 through 79.

Figure 6-5 shows three delete transactions and one change transaction. A delete for emission point 004 will remove that emission point and all associated point comments, actions and action comments for that point.

A delete for emission point 002, comment line 1, will delete only that one particular comment record from the Masterfile.

A delete for emission point 001 action 02 will delete one action together with any associated action comments.

To remove some data from a Masterfile record without removing the record from the Masterfile, use an Update Code "C"; code an asterisk in each field which is to be removed. In the example, a change transaction for emission point 002, action 01 will blank out the Results Code 01 on the Masterfile because there is an asterisk in the Results Code field. Because Date Scheduled and Date Achieved cannot be blanked out, an asterisk in the Date Achieved field will replace the existing Masterfile value with zeros.

6.5 Keypunch Instructions

There are five different card layouts which must be typed by the keypunch operator for input transactions to CDS. The operator is responsible for typing only the information which is coded on the coding sheets or forms submitted by the user. However, card columns 1-19 and 80 must always be filled in by the operator on all card types.

This section contains a listing of the data elements on each of the card types which will be used by the operator to enter transactions onto the data base. Table 6-1 lists the data elements, 1-19 and 80, which must be coded on all card types. Tables 6-2 through 6-6 list the data elements unique to each card type.

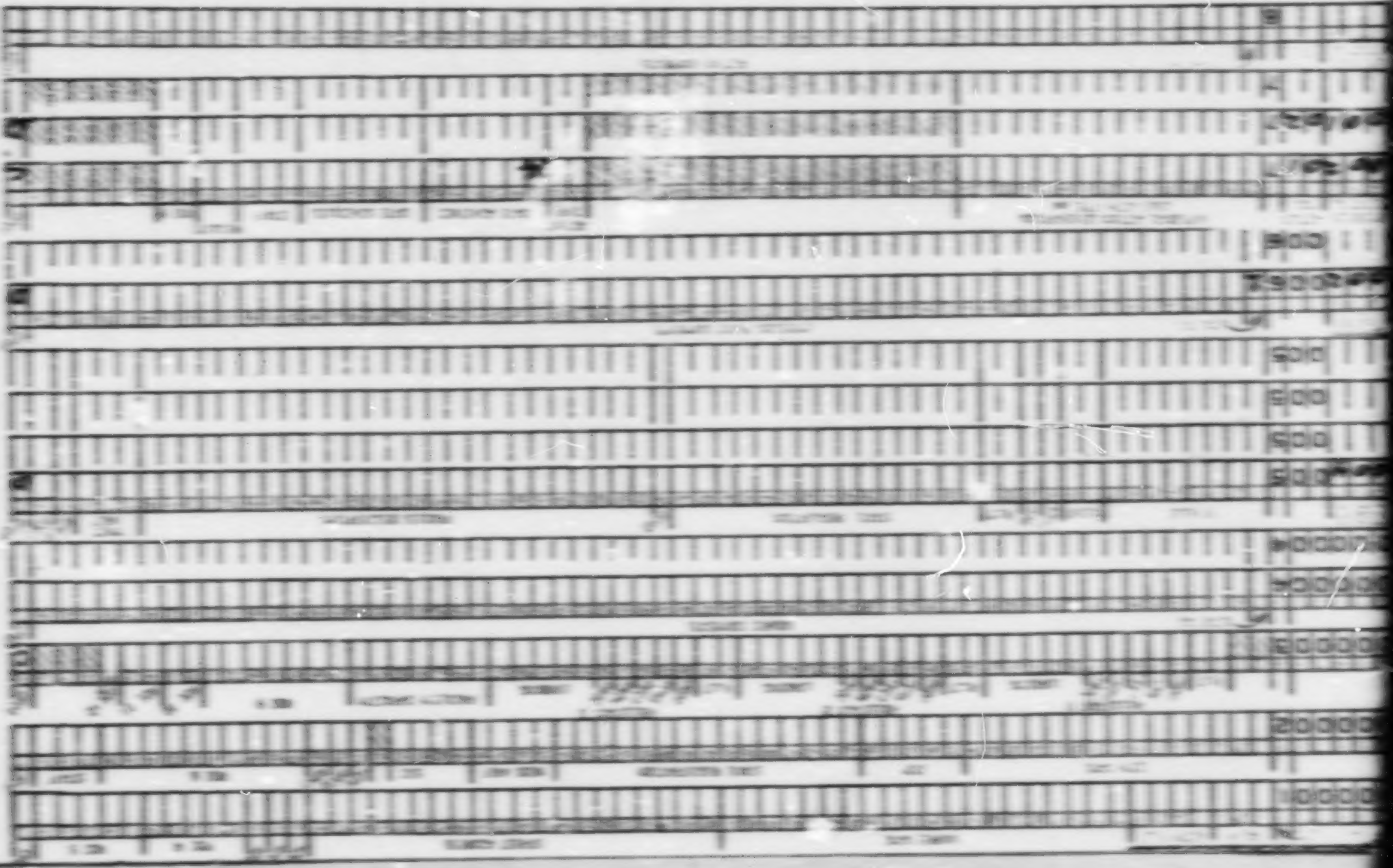


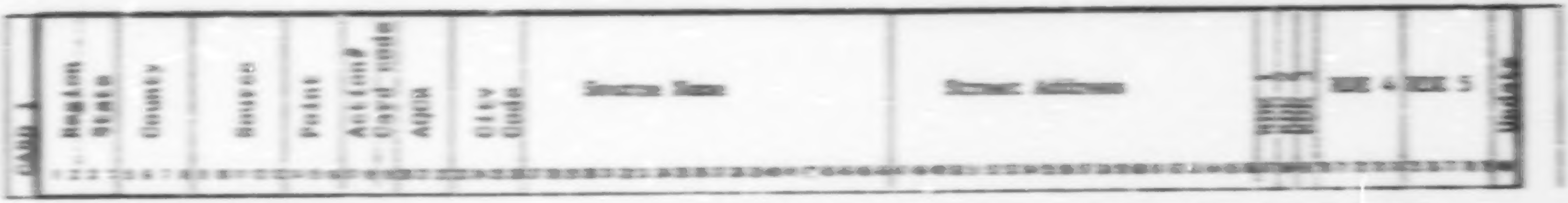
TABLE 6-1

KEYPUNCH INSTRUCTIONS
DATA REQUIRED ON ALL CARDS

Data Name	Card Column	Data Type	Data Element Length	Justified
Region	1-2	Numeric	2	Left
State	3-4	Numeric	2	Left
County Code	5-8	Numeric	4	Left
Source Number	9-13	Numeric	5	Left
Emission Point Number	14-16	Numeric	3	Left
Action Number	17-18	Numeric	2	Left
Card Code	19	Numeric	1	
Update Code	80	Alphanumeric	1	

TABLE 6-2

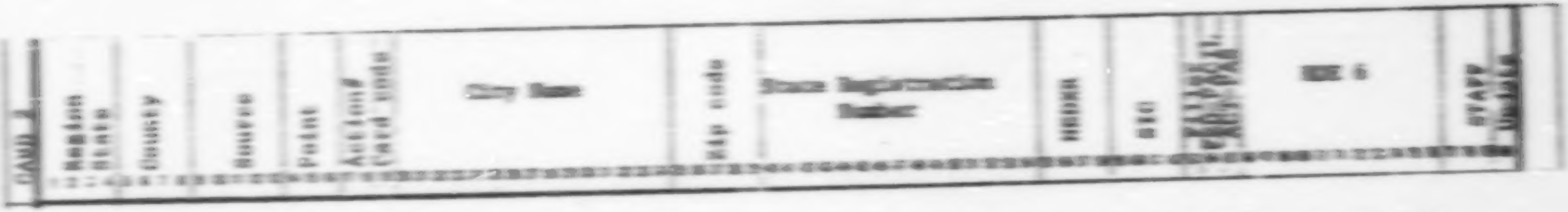
REGIONAL INFORMATION FOR CARD TYPE 1


CARD 1
Region
State
County
Source
Point
Action# Card code
AQCR
City Code
Source Name
Street Address
RDE 4
RDE 5
Update

Data Name	Card Column	Data Type	Data Element Length	Justified
AQCR	20-22	Numeric	3	Left
City Code	23-26	Numeric	4	Left
Source Name	27-46	Alphanumeric	20	Left
Street Address	47-66	Alphanumeric	20	Left
Regional Data Element 1	67	Alphanumeric	1	
Regional Data Element 2	68	Alphanumeric	1	
Regional Data Element 3	69	Alphanumeric	1	
Regional Data Element 4	70-74	Alphanumeric	5	
Regional Data Element 5	75-79	Alphanumeric	5	

TABLE 6-3

KEYPUNCH INSTRUCTIONS FOR CARD TYPE 2


CARD 2
Region
State
County
Source
Point
Action/
Card code
City Name
Zip code
State Registration
Number
NEDS
SIC
RDE 6
STAFF
Update

Data Name	Card Column	Data Type	Data Element Length	Justified
City Name	20-34	Alphanumeric	15	Left
Zip Code	35-39	Numeric	5	Left
State Registration Number	40-54	Alphanumeric	15	Left
NEDS Cross-reference	55-58	Alphanumeric	4	Left
SIC Code	59-62	Numeric	4	Left
Federal Facility Code	64	Numeric	1	
Active/Passive Code	65	Alphanumeric	1	
Regional Data Element 6	67-76	Alphanumeric	10	
Staff Personnel Code-Source	77-79	Alphanumeric	3	Left

TABLE 6-3A

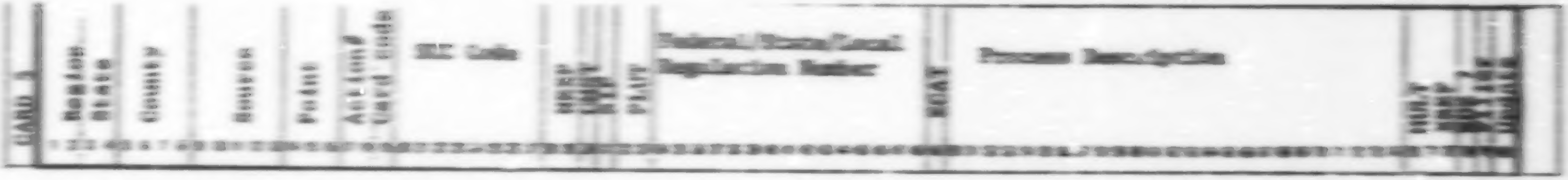
KEYPUNCH INSTRUCTIONS FOR CARD TYPE 3

Pollutant 1
Pollutant 2
Pollutant 3

Data Name	Card Column	Data Type	Length	Justified
Blank	20-21		2	
Pollutant 1	22-23	Alphanumeric	2	
Delete Flag 1	24	Alphanumeric	1	
Pollutant Compliance 1	25	Alphanumeric	1	
Pollutant Emission Category 1	26	Alphanumeric	1	
Pollutant Air Quality Maintenance Indicator 1	27	Alphanumeric	1	
Pollutant Air Quality Control Indicator 1	28	Alphanumeric	1	
Pollutant Loading 1	29-33	Numeric	5	Right
Pollutant 2	34-35	Alphanumeric	2	
Delete Flag 2	36	Alphanumeric	1	
Pollutant Compliance 2	37	Alphanumeric	1	
Pollutant Emission Category 2	38	Alphanumeric	1	
Pollutant Air Quality Maintenance Indicator 2	39	Alphanumeric	1	
Pollutant Air Quality Control Indicator 2	40	Alphanumeric	1	
Pollutant Loading 2	41-45	Numeric	5	Right
Pollutant 3	46-47	Alphanumeric	2	
Delete Flag 3	48	Alphanumeric	1	
Pollutant Compliance 3	49	Alphanumeric	1	
Pollutant Emission Category 3	50	Alphanumeric	1	
Pollutant Air Quality Maintenance Indicator 3	51	Alphanumeric	1	
Pollutant Air Quality Control Indicator 3	52	Alphanumeric	1	
Pollutant Loading 3	53-57	Numeric	5	Right
Facility Capacity	58-64	Alphanumeric	7	
Regional Data Element 9	65-71	Alphanumeric	7	
Regional Data Element 10	72-73	Alphanumeric	2	
Regional Data Element 11	74-75	Alphanumeric	2	
Regional Data Element 12	76	Alphanumeric	1	
Blank	77-79		3	

TABLE 6-4

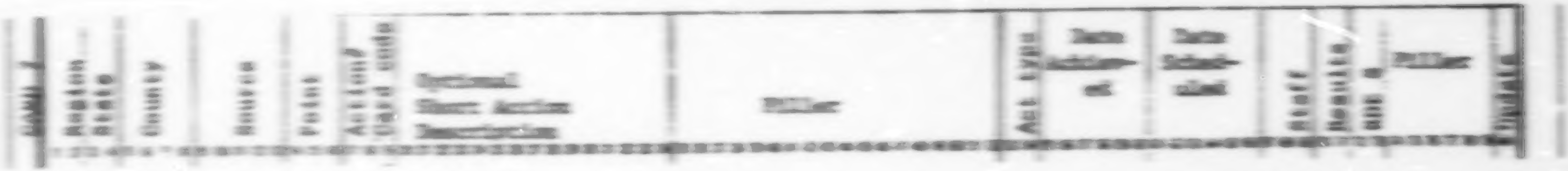
KEYPUNCH INSTRUCTIONS FOR CARD TYPE 5


CARD 5
Region
State
County
Source
Point
Action/Card code
SIC Code
NEDS
CMPL
SIP
PLLT
Federal/State/Local Regulation Number
ECAT
Process Description
MULT

Data Name	Card Column	Data Type	Data Element Length	Justified
SIC Code	20-27	Numeric	8	Left
NEDS Emission Cross-reference	28-29	Numeric	2	Left
Compliance Status	30	Numeric	1	
SIP Code	31	Numeric	1	
Pollutant Code	32-33	Alphanumeric	2	Left
State Regulation	34-48	Alphanumeric	15	
Emission Category	49	Numeric	1	
Process Description	50-74	Alphanumeric	25	Left
Multiple Cross-reference	75-77	Numeric	3	Left
Regional Data Element 7	79	Alphanumeric	1	

TABLE 6-5

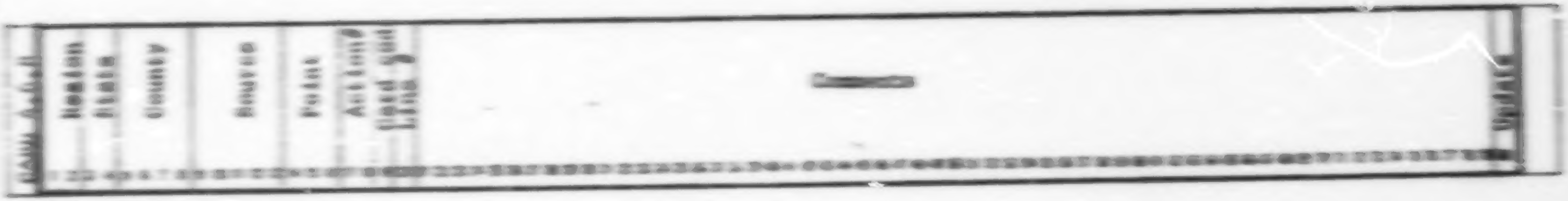
KEYPUNCH INSTRUCTIONS FOR CARD TYPE 7


CARD 7
Region
State
County
Source
Point
Action/Card code
Optional Short Action Description
Filler
Act type
Date Achieved
Date Scheduled
Staff
Results
Filler
Update

Data Name	Card Column	Data Type	Data Element Length	Justified
Short Action Description	20-34	Alphanumeric	15	Left
Action Type	53-54	Numeric	2	Left
Date Achieved	55-60	Numeric	6	Left
Date Scheduled	61-66	Numeric	6	Left
Action Staff Code	67-69	Alphanumeric	3	Left
Results Code	70-71	Numeric	2	Left

TABLE 6-[illegible]

[illegible] INSTRUCTIONS FOR CARD TYPES 4, 5, AND 8


Region
State
County
Source
Point
Comments
Update

Data Name	Card Column	Data Type	Data Element Length	Justified
Line Number	20	Numeric	1	
Comments	21-79	Alphanumeric	59	

7.0 EDIT PROCESSING

7.1 Edit Program Usage

Once data for the CDS System has been coded and keypunched, users must validate the input transactions by running the CDS Edit Program. The Edit can be run at any time, and it can be run any number of times in between update cycles. However, it is best to coordinate the scheduling of Edit runs to correspond to the scheduling of the update cycle. Allow time to correct any errors that may be detected by the Edit before the weekly update.

Since the update cycle is usually run on Wednesday nights, users should schedule their data preparation, Edit runs, and corrections to be ready for the update cycle. When the input transaction volume is under 2,000 cards per week, the following would be an ideal schedule:

1. Punch cards are delivered to the regional CDS Data Bank Coordinator or to the operator of the communications terminal on Tuesday afternoon.
2. Input cards together with appropriate JCL cards are submitted on Tuesday night to OSI.
3. The Edit Report is examined on Wednesday morning.
4. Edit errors are corrected Wednesday morning and resubmitted with a high priority on Wednesday afternoon.

When the volume of input transactions is over 2,000 cards per week, or when keypunching is returned to the user in multiple batches, it is best to run the Edit several times during the week as soon as data is returned from keypunching.

The Edit validates each of the seven punched card types one at a time. Note that some transactions which pass the Edit may be rejected later. If a new facility is being entered into CDS, the Edit may accept as valid all of the transactions for that facility except Card 1 which contains the Source Name and Address. In the update cycle, all of the transactions for that facility will be rejected since the facility level data was not passed to the Update. With the hierarchial relationship between source, point, and action transactions, an error at a higher level can create additional errors in the update cycle for transactions accepted by the Edit. For this reason it is very important to correct and resubmit Edit errors as quickly as possible.

7.1.1 Warning and Fatal Errors

All transactions are validated by the Edit Program. The Edit Report produced by the Edit Program lists the action taken on each input transaction. If an input transaction has no edit error message next to it on the Edit Report, it is a valid transaction. One or more error messages are printed on the Edit Report next to transactions in error. Errors are identified as either "Warning" or "Fatal". One or more fatal errors will prevent the transaction from being saved for the update cycle. A transaction with only warning errors will be saved for the update, but the data elements in error are blanked out. The user must review the Edit Report carefully to verify accepted data and to make appropriate corrections for rejected data.

7.2 Edit Error Messages

All of the errors identified by the Edit Program are listed in Table 7-1. All error messages preceded by three asterisks indicate a fatal error. Error messages preceded by one asterisk indicate a warning error.

TABLE 7-1

EDIT ERROR MESSAGES

Data Element Name	Message	For Detailed Explanation, See Page:
Region	*** INVALID REGION CODE	A-2
State	*** INVALID STATE CODE	A-3
State	*** STATE NOT IN REGION	A-3
County Code	*** INCORRECT COUNTY CODE FOR STATE	A-5
Source Number	*** SOURCE NUMBER MUST BE NUMERIC	A-6
Card Code	*** INVALID CARD CODE	A-11
Update Code	*** INVALID UPDATE CODE	A-9
Emission Point Number	*** EMISSION POINT MUST BE ZEROS	A-7
Action Number	*** ACTION NUMBER MUST BE ZEROS	A-8
Source Name	*** SOURCE NAME REQUIRED ON NEW ENTRY	A-14
Line Number	*** LINE NUMBER MUST BE NUMERIC	A-33
Update Code	*** UPDATE CODE D INVALID FOR CARD 2	A-9
Emission Point Number	*** POINT MUST BE GREATER THAN ZERO	A-7
Compliance Status	*** INVALID COMPLIANCE STATUS CODE	A-37
Action Number	*** ACTION NUM MUST BE GREATER THAN ZERO	A-8
Action Type	*** INVALID ACTION TYPE	A-44
Update Code	*** NO DATA IN COL 21-79 FOR DELETES	A-9
Action Type	*** ACTION TYPE REQUIRED ON NEW ENTRY	A-44
Update Code	*** DO NOT DELETE POINT 000	A-9

TABLE 7-1 (Continued)

Data Element Name	Message	For Detailed Explanation, See Page:
AQCR	* INCORRECT AQCR FOR COUNTY	A-10
City Code	* CITY CODE SHOULD BE NUMERIC	A-13
Zip Code	* ZIP CODE SHOULD BE NUMERIC	A-25
SIC Code	* SIC CODE SHOULD BE NUMERIC	A-28
Federal Facility Code	* INVALID FEDERAL FACILITY CODE	A-29
Active/Passive Code	* INVALID ACTIVE/PASSIVE CODE	A-30
Staff Personnel Code-Source	* INVALID STAFF CODE	A-32
SCC Code	* SCC SHOULD BE NUMERIC	A-35
SIP Code	* INVALID SIP CODE	A-38
Pollutant Code	* INVALID POLLUTANT CODE	A-39
Emission Category	* INVALID EMISSION CATEGORY	A-40(A)
Multiple Crossreference	* MULTIPLE XREF SHOULD BE NUMERIC	A-42
Date Achieved	* INVALID DATE ACHVD - OUTPUT ZEROS	A-45
Date Scheduled	* INVALID DATE SCHED - OUTPUT ZEROS	A-46
	* DATE SCHED REQUIRED ON NEW ENTRY	A-46
Results Code	* INVALID RESULTS CODE	A-48
Update Code	* ASTERISKS FOR CHANGES	
Action Type	* ACT DESC IGNORED - ATPE NOT 10	A-44
Pollutant Delete Flag	* INVALID POLLUTANT DELETE FLAG	A-32B
	* NO DATA TO FOLLOW DELETE FLAG	A-32B
Pollutant Compliance	* INVALID POLLUTANT COMPLIANCE	

Transactions with one or more fatal errors will not be placed on the MOD File. Transactions with no errors or with only warning errors will be placed on the MOD File for future processing by the Update. Keep in mind that a data element flagged with a warning message is blanked out by the Edit.

For a detailed explanation of the valid values for each data element in the CDS System, please consult Appendix A. Coding instructions are given for each data element; edit error messages by data element are repeated in this appendix. Certain data elements in Appendix A contain no edit error messages; these data elements are not validated by the Edit and may contain any alphanumeric characters.

7.3 Sample CDS Edit Report

A sample Edit Report is shown in Figure 7-1. Each page of the report contains the report title, the region name, the date, and the time at which the Edit was run by the computer. The report also contains column headings for the following data elements: Region, State, County, Source, Point, Action, Card Type, and Update Code. Directly beneath these column headings are two rows of numbers indicating card columns; the position of any data on the card can be determined by referring to these card column identifiers.

For each new Card 1 accepted by the Edit, a county name is generated and printed directly beneath the County Code; this county name is passed to the Update, where it is placed on the Masterfile together with all the other input data.

COMPLIANCE DATA SYSTEM EDIT REPORT
REGION [illegible]
TRANSACTIONS ENTERED ON [illegible] AT [illegible]

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[illegible]

CARD COLUMNS

UPDATE CODE

ERROR MESSAGES

[illegible]

INVALID FEDERAL FACILITY CODE

INVALID FEDERAL FACILITY CODE

INVALID FEDERAL FACILITY CODE

INVALID FEDERAL FACILITY CODE

INVALID FEDERAL FACILITY CODE

[illegible]

Error messages are identified on the right hand side of the report. In addition to the error messages, data elements in error will have one or more asterisks directly beneath the data element to help pinpoint the problem area which needs to be corrected.

7.4 Edit Job Control Language (JCL)

To execute the Edit Program, use the JCL shown in Figure 7-2. Unless ALPHA is being used, a priority card should be the first card of the run job stream. Because a job cannot receive this priority unless it uses less than one minute of CPU time and produces less than 10,000 lines of output, it is better to run two Edit jobs with 6,000 input cards rather than one job with 12,000 cards.

A number of options are available with the Edit Program:

1. Card input on a "dummy" basis. This option enables the user to see the edit report produced by his input transactions without actually placing the transactions on the output MUD File. The "dummy" mode is particularly useful if the user is expecting a considerable number of errors which can be corrected and resubmitted prior to the update cycle. The user should remember that no valid transactions on the Edit Report are passed to the Update when the "dummy" mode is being used. Use the JCL shown in Figure 7-3.

2. Input from tape or disk. Input from a disk file or a tape file can be processed by the Edit just as easily as punchcard input. Use the JCL shown in Figure 7-4.

3. Saving the Reject File. All fatal errors identified by the Edit can be saved on a disk file for correction via WYLBUR, or they can be printed out for re-coding. This optional file is an 80 character card image of the rejected input transactions. If the Reject File is placed on an ALPHA data set for corrections, the corrected file can be resubmitted as input to the Edit. Use the JCL shown in Figures 7-5 and 7-6.

4. Submitting input via ALPHA. If input data exists on an ALPHA data set, JCL can be added to the data set in order to run the Edit. Use the procedures shown in Figure 7-7. This option should be used only if the user is already familiar with basic JCL and ALPHA concepts.

[illegible] [illegible]

[illegible] CDS Edit

[illegible]

JCL for using the CDS Edit with card input.

```
/*PRIORITY     4
//EPAiii   JOB 'oooo,iii','USER ID',TIME=1
//CDSEDIT  EXEC CDSIPTm
//EDIT.CARDSIN  DD *
```

[illegible]

```
//
/*EOF
```

[illegible]

Where:

iii [illegible]

oooo [illegible]

m [illegible]

[illegible]

[illegible]

AUTHOR [illegible]	PROGRAM NAME CDS EDIT	TASK NUMBER

Using the CDS EDIT with the "DUMMY" mode; with this mode, no data is saved on the [illegible] File.

```
*PRIORITY      4
//EPAiii    JOB (oooo,iii),'USER ID',TIME=1
//CDSEDIT   EXEC CDSIPTm,TYPE='DUMMY'
//EDIT.CARDS.ID DD *
```

Input transaction cards should be placed immediately after the above JCL card.

```
//
/*EOF
```

The [illegible] cards should be placed at the end of the transaction deck.

Where:

iii is the user's initials

oooo is the user's account number

m is the user's [illegible]

FIGURE 7-3

[illegible]

AUTHOR [illegible]

PROGRAM NAME CDS EDIT

TASK NUMBER

Using tape input instead of punch card input to the CDS Edit.

```
*PRIORITY    4
//EPAiiii    JOB (oooo,iiii),'USER ID',TIME=1
//CDSEDIT    EXEC CDSIPTm
//EDIT.CARDSIN DD DSN=xxxxxx,UNIT=2400,DISP=SHR,
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=yyyyy),
//             VOL=SER=zzzzzz
//
*EOF
```

Where:

iiii [illegible]

oooo [illegible]

m [illegible]

xxxxxx [illegible]

yyyyy [illegible]

zzzzzz [illegible]

FIGURE 7-4 [illegible]

AUTHOR [illegible]	PROGRAM NAME CDS EDIT	TASK NUMBER

Saving the optional REJECT File during a regular Edit run; this file can then be corrected via [illegible]

```
*PRIORITY       1
//EPAiii    JOB (oooo,iii),'USER ID',TIME=1
//CDSEDIT   EXEC CDSIPTn
//EDIT.REJECT DD DSN=CN.EPAiii.oooo.ERRORS,UNIT=3330,
//          DISP=(NEW,KEEP),SPACE=(TRK,(2,2)),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120),
//          VOL=SER=WORK50
//EDIT.CARDSIN DD *
```

Input transactions should be placed immediately after the above DD card.

```
//
*EOF
```

The above two cards should be placed at the end of the transaction deck.

Where:

iii is the user's initials

oooo is the user's account number

n is the user's [illegible] number

FIGURE 7-5

SAVING THE REJECT FILE

IBM

AUTHOR TRC | PROGRAM NAME CDS EDIT | CARD NUMBER

Printing the optional REJECT file during a regular Edit run.

```
*PRIORITY     4
//iii          JOB (cccc,iii),'USER ID',TIME=1
//CDSEDIT    EXEC CDSIPTM
//EDIT_REJECT  DD SYSOUT=A,DCB=BLKSIZE=80
//EDIT_CARDSIN DD *
```

Input transaction cards should be placed immediately after the above JCL card.

```
//
*EOF
```

The above two cards should be placed at the end of the transaction deck.

Where:

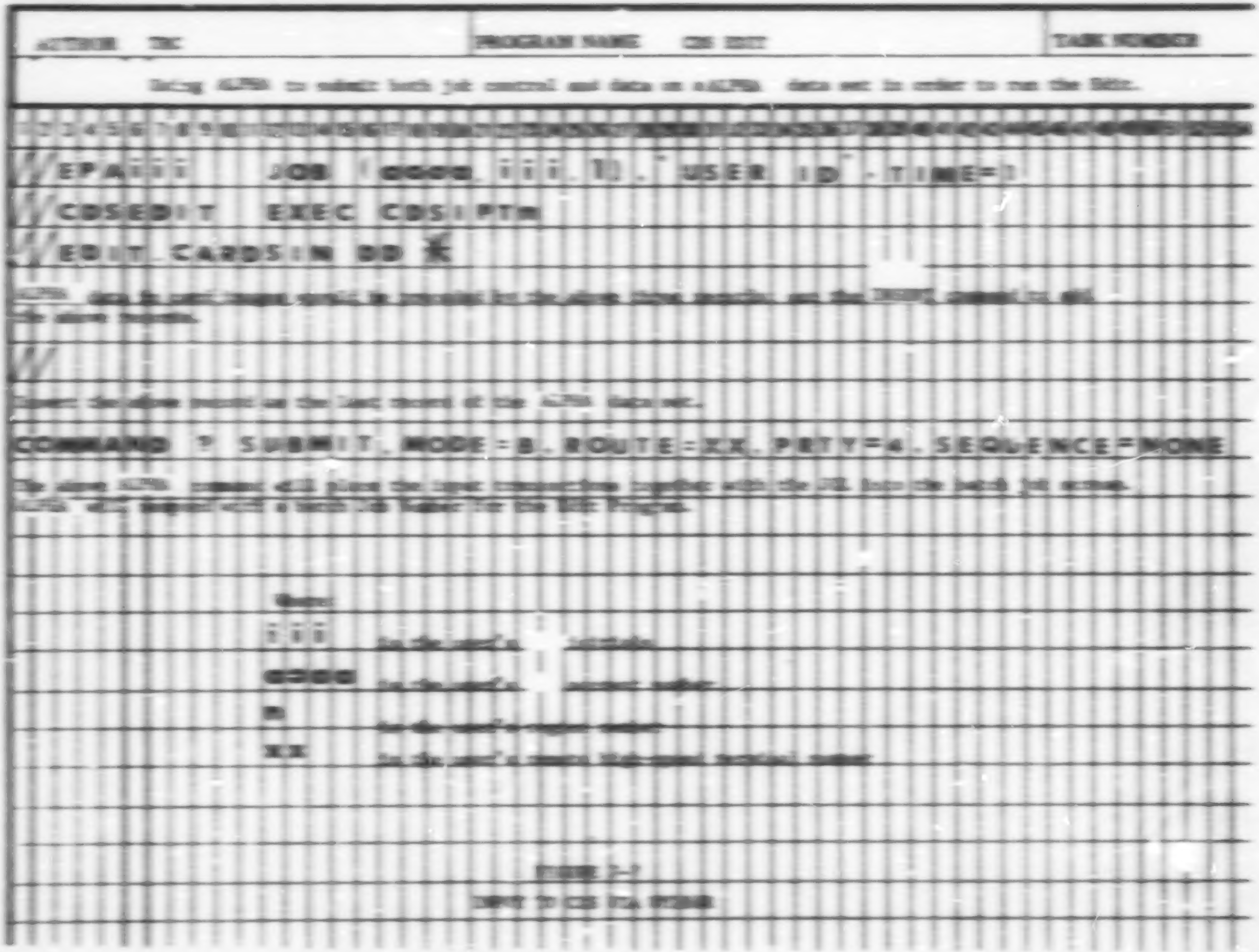
iii is the user's initials

cccc is the user's account number

n is the user's region number

FIGURE 7-4

PRINTING CDS REJECT FILE



AUTHOR [illegible] | PROGRAM NAME CDS EDIT | TASK NUMBER

[illegible]

```
//EPAiii    JOB (oooo,iii,1),'USER ID',TIME=1
//CDSEDIT   EXEC CDSIPTM
//EDIT.CARDSIN DD *
```

[illegible]

```
//
```

[illegible]

```
COMMAND ? SUBMIT,MODE=B,ROUTE=XX,PRTY=4,SEQUENCE=NONE
```

[illegible]

Notes:

iii [illegible]

oooo [illegible]

B [illegible]

XX [illegible]

FIGURE 7-[illegible]

[illegible]

8.0 UPDATE PROCESSING

The update cycle consists of a series of programs which apply input transactions to the Masterfile. All input transactions which contain no fatal errors are stored on the MOD File by each run of the Edit program. During the update cycle, all transactions placed on the MOD File since the last update cycle are applied to the Masterfile by the Update program. The update cycle is usually scheduled by the national DCC to run on Wednesday nights.

8.1 Update Program Description

Prior to the Update Program, all input transactions from the MOD File are sorted into the same sequence as the Masterfile. The output Masterfile from the previous update cycle becomes the input Masterfile to the current cycle. The Update applies input transactions to the Masterfile to produce a new version of the Masterfile as output. There are three major logic paths in the Update depending on the Update Code present on the transaction.

To add a new record to the Masterfile, the Update performs the following steps:

1. The records on the input Masterfile are copied to the output Masterfile until an input Masterfile record is found with a record identifier (Region, State, County, Source, Point, and Action Numbers) equal to or greater than the record identifier on the input transaction.

2. If an input Masterfile record already exists for that record identifier, the input transaction is rejected since the Update cannot perform the add logic.

3. If an input Masterfile record does not exist for that record identifier, the transaction is formatted into an output Masterfile record.

To change an existing record on the Masterfile, the Update performs the following steps:

1. The records on the input Masterfile are copied to the output Masterfile until the record identifier on the input Masterfile is equal to or greater than the record identifier on the input transaction.

2. If there is an input Masterfile record with the same record identifier as the input transaction, the data on the transaction is applied to the input Masterfile. After all multiple change transactions have been applied to the input Masterfile record, it is then placed on the output Masterfile.

3. If there is no input Masterfile record with the same record identifier as the input transaction, the change transaction is rejected. Special logic has been developed to allow users to create a new Masterfile record with a Card 3 change transaction to avoid rejects.

To delete an existing record from the Masterfile, the Update performs the following steps:

1. The records on the input Masterfile are copied to the output Masterfile until the record identifier on the input Masterfile is equal to or greater than the record identifier on the input transaction.

2. If there is no input Masterfile record with the same record identifier as the input transaction, the input transaction is rejected.

3. For a comment delete, the input Masterfile record which matches the record identifier of the input transaction is not copied to the output Masterfile.

4. For an action delete, input Masterfile records with the same Region, State, County, Source, Point, and Action numbers as the input transaction are not copied to the output Masterfile.

5. For an emission point delete, input Masterfile records with the same Region, State, County, Source, and Point numbers as the input transaction are not copied to the output Masterfile.

6. For a facility delete, input Masterfile records with the same Region, State, County, and Source numbers as the input transaction are not copied to the output Masterfile.

The Update will reject input transactions under the following conditions:

1. Because of the Masterfile hierarchy, an action cannot be added to the Masterfile without a corresponding emission point, nor can an emission point be added to the Masterfile without a corresponding source record. Comments cannot be added without their corresponding source, point, or action records.

2. A new and a change transaction for the same record identifier cannot be applied to the Masterfile during the same update cycle. The change transaction will be rejected.

3. A delete and a change transaction for the same record identifier cannot be applied to the Masterfile during the same update cycle. The change transaction will be rejected.

In addition to applying adds, changes, and deletes to the Masterfile, the Update also performs a table lookup on all personnel codes on the Masterfile. No change transactions need to be coded to change personnel names on the CDS Masterfile. Whenever a name associated with a personnel code is changed by the national Data Bank Coordinator, the personnel name and the associated table for that personnel code will be placed by the update cycle onto the CDS Masterfile. This will be accomplished for personnel at both source and action levels.

Regional users should call the national Data Bank Coordinator to add, change or delete entries on personnel tables. The user may consult the Data Element Sheets in the Appendix for additional information.

8.2 Update Report

The Update Program produces an Update Report which is stored on a Regional file. If the user had transactions which were entered into the update cycle, then the user must request his Update Report by submitting the Update Report Job Control described in Section 8.2.1. This must be done prior to the next update cycle. As soon as the next update cycle is run, the previous week's report is no longer on the disk file. A new report replaces the previous week's report on the disk file. TMC keeps copies of weekly Update Reports in its files; however, the user should keep his own file of weekly Update Reports.

The Update Report has one print line for each transaction sent to the Update Program by the Edit Program. Next to each transaction on the report, there is an Update Action column which shows that the transaction was either added, changed, deleted or rejected from the CDS Masterfile. If the transaction was rejected, there will also be an error message explaining why the transaction could not be added, changed, or deleted.

All errors appearing on the Update Report should be corrected, coded, and then resubmitted to CDS via the Edit Program.

A sample Update Report is shown in Figure 8-1. The title, region number, and output serial number are recorded at the top of the report. Column headings are listed across the top of the page. Update Action is located on the right side of the page with an accompanying message if the transaction was rejected. Update error messages are listed in Table 8-1.

8.3 Update Report Messages

On the Update Report, the Update Action column indicates the action taken by the Update Program on each transaction passed by the Edit. The normal Update Action message is ADDED, CHANGED, or DELETED. An ampersand

```
                                        UPDATE REPORT
[illegible]                        COMPLIANCE DATA SYSTEM                                  PAGE 3
                                  REGION 3- PHILADELPHIA
                                  [illegible]

STATE CNTY SOURCE  [illegible]  CARD      CARD COLUMNS                          UPDT UPDATE  ERROR
CODE  CODE CODE                 CODE                                            CODE ACTION  MESSAGE
                                         2    3    4    5    6    7              8
                                                                                             & = MULTIPLE CHANGE
[illegible]

[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     C    CHANGED
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED &
[illegible]                                                                     D    REJECT  NOT ON FILE
[illegible]                                                                     D    REJECT  NOT ON FILE
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED &
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED &
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     D    DELETE
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED &
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED &
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED
[illegible]                                                                     C    CHANGED &
[illegible]                                                                     C    CHANGED &
```

FIGURE B-1
UPDATE REPORT

TABLE 8-1

UPDATE ERROR MESSAGES

Update Error Message	Explanation
SOURCE NOT ON FILE	Cards 2 through 8 cannot be added to the masterfile with an Update Code "N" unless the Card 1 has been added as new during this update cycle or during a previous update cycle. Make sure that the source exists on the Masterfile; verify that the correct State, County, and Source Number is being used on the transaction.
POINT NOT ON FILE	Cards 6 through 8 cannot be added to the Masterfile with an Update Code "N" unless there is a corresponding Card 5 on the Masterfile. Make sure that the Emission Point is being added as new or has already been added as new when emission comment or action information is being added to the Masterfile.
ACT NUM NOT ON FILE	An action comment Card 8 cannot be added to the Masterfile unless a corresponding action (Card 7) already exists on the Masterfile.
NEW 2 INVALID	Card 2 can be added to the Masterfile as new only during the same update cycle as the Card 1 is added as new. Once the source exists on the Masterfile, use an Update Code "C" to change the data elements found on the Card 2.
DUPLICATE TRANS	If two or more transactions with the same Region, State, County, Source, Point, and Action numbers have an Update Code "N" the first transaction is added to the Masterfile; and the second and subsequent transactions are rejected with this message. A change transaction following a new transaction for the same Record ID is rejected. Duplicate delete transactions are also rejected.
NOT ON FILE	The Update cannot apply a change transaction or a delete transaction against a non-existent Masterfile record. Verify the State, County, Source, Point, and

TABLE B-1 (Continued)

Update Error Message	Explanation
	Action Numbers being used on the transaction.
ALREADY ON MF	A transaction with an Update Code "N" cannot be added to the Masterfile if a Masterfile record already exists with the same Region, State, County, Source, Point, and Action numbers. Also a new comment cannot be added if a comment with the same record identifier and line number already exists on the Masterfile.
98 ON MF	When the next sequential action number is not known on the Masterfile, action number 99 can be coded; the Update will convert the 99 to the next highest sequential action number. To prevent the Masterfile from going out of sequence, no action number over 98 will be added to the Masterfile.
&(AMPERSAND)	When an ampersand appears in the Error Message column of the Update Report, it indicates the presence of a multiple change transaction to the Masterfile. This is not an error message; it is only a warning that multiple changes have been applied to the Masterfile in chronological order.
[illegible] REJ	If one or more sets of pollutant compliance data cannot be added to the Masterfile because there are already 10 sets of pollutant compliance data on the Masterfile, a reject message is issued for each of the rejected pollutants. The Pollutant Code together with the letters "REJ" is printed in the Error Message column. Since the Card 3 has room for three sets of pollutant compliance data, up to three different reject messages may exist on one line.

next to the word CHANGED indicates that the Update has applied multiple changes to the same Masterfile record in chronological order.

The word REJECT in the Update Action column indicates that the Update Program could not perform the appropriate add, change, or delete indicated by the transaction's Update Code. For each rejected transaction, there is a diagnostic error message printed out. Table 8-1 lists all of the errors identified by the Update. An explanation of the corrective procedures for each update error message is also given in this table.

8.4 Update Scheduling

The scheduling and maintenance of the update cycle is the responsibility of the national Data Bank Coordinator. Once a week, usually on Wednesday night, the valid transactions on the MOD File are applied to the CDS Masterfile by the Update Program. Because of this schedule, it is important for users to have all of their weekly input ready on or before Wednesday noon.

If a sufficiently large number of regional users request an additional update, a special update run will be scheduled. When holidays prevent a Wednesday night update cycle or when a special update cycle is scheduled, the national Data Bank Coordinator will inform all CDS users of the change.

On Thursday mornings and on all mornings following an update cycle, users should verify that the update cycle has run successfully by examining the Update Status Log described in Section 8.5, and then users should obtain their Update Reports by using the Job Control

Language described in Section 8.6.

8.5 Update Status Log

The Update Program produces an Update Status Log which shows the most recent successful run of the Update Cycle. This log is available to those users having access to an ALPHA computer terminal. This Update Log shows the date, the time and the output serial number of the most recent update cycle. The Log shows which regions participated in the update. In addition, it also shows the number of transactions input to the update and the number of transactions accepted and rejected by the update for each region.

To obtain the log, perform the following steps:

1. Follow the standard OSI sign-on procedures for System "E" by typing in the user account, initials, keyword, and terminal identifier.

2. As soon as ALPHA gives the prompt, COMMAND?, type in the following and then hit the carriage return:

   ```
   LOAD CN.EPAERC.A026.CDS.SYSOUT
   ```

3. As soon as ALPHA gives the next prompt, COMMAND?, type in the following and then hit the carriage return:

   ```
   LIST
   ```

4. Figure 8-3 shows the contents of the log produced by following the above steps.

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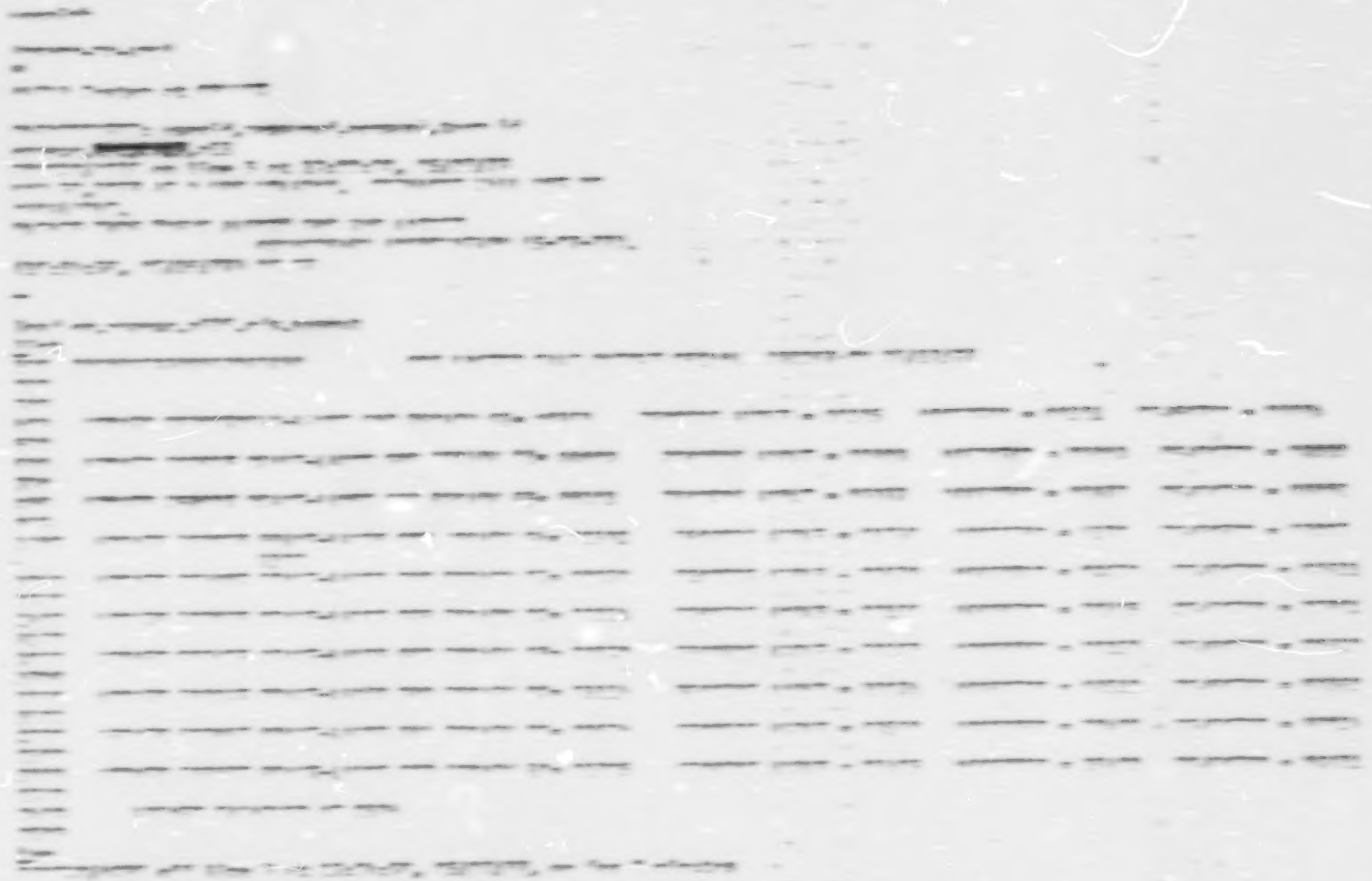

FIGURE 8-2

CDS UPDATE LOG

8.6 Update Report Job Control Language

The user is responsible for requesting his region's Update Report for each update cycle for which the region had input data. To execute the program which produces the Update Report, use the JCL shown in Figure 8-3. This JCL should be submitted immediately after each update cycle for which the user had input. Normally the user should submit this JCL on Thursday mornings and on mornings following special update cycles.

If the user does not submit this JCL prior to the next update cycle, the information from the update run is overlaid by the next update cycle's Update Report.

The Update Report provides the only audit trail of all transactions placed on the CDS Masterfile; therefore, it is important to keep this report on file so that errors can be researched and corrected.

AUTHOR TRC

PROGRAM NAME CDS Regional Update Report

TASK NUMBER

JCL for obtaining the CDS Update Report for a given region.

```
//*PRIORITY         4
//EPAiii       JOB (GGGG,iii),'USER ID',TIME=1
//CDSRPT       EXEC CDSRPTn
//
/*EOF
```

Where:

iii is the user's initials

GGGG is the user's account number

n is the user's region number; the valid values are 1 through 10.

FIGURE 8-3

CDS UPDATE REPORT JOB CONTROL

9.0 RETRIEVAL PROCESSING

The Compliance Data System Retrieval is used to prepare management reports based on information on the Masterfile. The Retrieval has been developed to provide a great deal of flexibility to users in selecting and formatting management reports. Data can be formatted, sequenced and selected based on criteria developed to meet specific needs.

All output reports other than the Edit Report and the Update Report are produced on request from the CDS Retrieval Program. Requests for management reports may be made at any time since they are processed independently of the Update Cycle. The Retrieval provides users with the capability of seeing what data is on the Masterfile in a format that meets the user's needs.

To obtain reports from the Retrieval Program, the user must carefully prepare a Retrieval request form and submit this form to have the selection cards keypunched. The keypunched selection cards and appropriate Job Control Language cards are used to run the Retrieval. The user submits this input to the central computer site via the terminal or by WYLBUR. Output from the Retrieval Program consists of a Retrieval Edit Report and the management reports requested by the user.

The Retrieval Program provides the following advantages:

- Quick turnaround - the package operates on a "demand" basis and will usually provide overnight or faster turnaround, depending on the backlog of work at the computer center. In many cases, requests requiring less than 10,000 lines of printout can be met within one hour.

- Improved selectivity - Information can be selected from the Masterfile to meet the specific needs of the user so that smaller, more pertinent reports can be prepared. For example, if the user needs to have a list of point source facilities within a State or AQCR, he could get a Quick Look Report which shows only these facilities and the particular information he wants to know (Name, Size, Compliance Status, etc.) on a single line.

- Selection logic - Each user can select from his entire Regional Masterfile only that data which is of interest to him for his particular needs. The user can select data based on the presence or absence of information on the Masterfile depending on the type of selection criteria he specified on the logic selection input card.
- Variable sequence - The Retrieval program permits the user to select the sequence in which he would like to view the data he has selected.
- Variable output format - Regions can select from six print formats depending on need. One of the formats is a single line report with a user option allowing inclusion of any specific data elements desired.

Since all management reports are based on CDS' retrieval capability, users should place data on the Masterfile in a manner which will permit efficient retrievals. At the present, comment information cannot be used in the retrieval's selection or sorting criteria. When preparing input data for CDS, users should be aware of the validation procedures for each data element performed by the CDS Edit as well as the selection, sorting, and printing criteria available in the Retrieval.

9.1 Reports Available from the Retrieval

Management reports are not automatically generated; the user must request reports from the Retrieval System to suit his own particular needs. The user must determine what information available on the Regional Masterfile is of interest to him. The user may obtain all of the information on the Masterfile or a limited amount based on his needs.

Any of the defined data elements can be used as a selection criteria. Since the selection, sorting and printing criteria in the Retrieval Program operate independently, the user may select a report on one set of data elements, sort on another set of data elements, and select different data elements for printing. Selection criteria cannot be based on information found in comment records. If none of the nationally defined data elements meet the user's selection criteria, one of the Regional Data Elements should be used to facilitate retrieval selection.

Reports are printed in Region, State, County and Source Number sequence unless the user selects his own sorting sequence. Up to six data elements, other than comments, may be used to create the user sort sequence.

The Source Data Report, the Questionnaire Report, the Action Summary Report, and the Milestone Report will present user selected and sorted information in a fixed format. The Quick Look Report allows the user to design his own report format. All data elements other than comments can be formatted for printing in a user selected sequence. A detailed description of each Report is provided in the following paragraphs.

9.1.1 Quick Look Report

The Quick Look is the most widely used report type available from the Retrieval. For each source, point, or action which meets the user's selection criteria, a single line containing user-selected data elements is formatted for printing. The user may specify what data elements are printed, and also he may specify the spacing of these data elements.

A standard Quick Look print line contains State, County, Source, Point, and Action Numbers together with up to ten other user-selected data elements. The only restriction is the print line length of 132 characters. Users may suppress State, County, Source, Point, and Action Numbers on each Quick Look line by using the No-header option. This option allows the full use of the 132 character print line for user-selected data elements.

Data elements are printed on the Quick Look line in the same order as they are requested on the print-format selection card. For spacing purposes, the user may select one of the two special data elements: BLK1 produces a blank column five characters wide; BLK2 produces a blank column 15 characters wide. These two data elements may be used repeatedly for spacing as required. BLK1 and BLK2 are especially useful when the Quick Look is used as a turnaround document.

If the user does not wish to see repeating data, the suppression option can be used. Using this option, source level data will print only when there is a change in data to be printed at the source level. Point level data will print only when a new point is to print. Action level data will always print.

Note that if only source and point information have been requested on the Quick Look Report, only source level suppression will take place. If only source level data has been requested no suppression will occur. Figure 9-1A shows a Quick Look Report with data suppression.

At the end of the Quick Look Report, a total is given for the number of lines printed. This total represents the sum of all items meeting the user's selection criteria. A page-break and subtotals are also available on the user-selected data elements. The user is cautioned to request page-breaks and subtotals only for those data elements which produce logical groupings, such as State, AQCR, Action Type, etc.

The user may select his own sequencing for the Quick Look Report. Often two Quick Look Reports with the same selection criteria provide the user with a great deal of insight when the reports are sequenced differently.

Since three different Retrieval report formats can be requested from the same Retrieval, the Quick Look Report can serve as a summary or index to one of the longer report formats such as the Source Data Report.

9.1.2 Double Spaced Quick Look Report

This report is identical to the Quick Look Report except that a double space is provided between print lines. This feature is especially useful when the report is to be used as a turnaround document. The Quick Look and Double Spaced Quick Look Reports cannot be requested simultaneously.

Figures 9-1 and 9-2 are samples of the Quick Look Report and the Double Spaced Quick Look obtained by using the same selection, sorting, and printing criteria.

Logic selection was based on Illinois and Indiana facilities which have had Compliance Monitoring Evaluation Actions scheduled between January 1, 1975, and March 31, 1976.

Sorting was based on State and Source Name.

Pring line selection was based on the following data elements: Source Name, City, State, Action Description, Date Scheduled, and Date Achieved.

[illegible] REPORT

[illegible]

COMPLIANCE DATA SYSTEM
ILLINOIS AND INDIANA COMPLIANCE MONITORING

PAGE 1

ST	CNTY	SRCE	CP	[illegible]	SOURCE NAME	CITY NAME	ST	ACTION DESCRIP	D SCH	D ACH
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AMERICAN CAN	INDIANAPOLIS	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AMERICAN OIL	WHITING	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AMERICAN OIL CO	HAMMOND	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AMERICAN STEEL FNDRY	HAMMOND	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AMERICAN ALL TRAN	TERRE HAUTE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	ATLANTIC RICHFIELD	EAST CHICAGO	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	BENDIX	SOUTH BEND	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	BUCYRUS ERIE	EVANSVILLE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CAN-TEX IND	CANNELTON	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CHRYSLER	KOKOMO	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CHRYSLER	INDIANAPOLIS	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CITIZENS GAS & COKE	INDIANAPOLIS	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	ELI LILLY	INDIANAPOLIS	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	GMC	KOKOMO	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	GMC	ANDERSON	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	GMC	INDIANAPOLIS	IN	COMP MONIT EVAL	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] CABINET	SELLERSBURG	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	INDIANA & MICH ELEC	MISHAWAKA	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	INDIANA FARM BUR	MOUNT VERNON	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	INDIANA GAS & CHEM	TERRE HAUTE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	INLAND STEEL	EAST CHICAGO	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	INTERNATIONAL STEEL	EVANSVILLE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	INTRL HARVESTER	FORT WAYNE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	JONES & LAUGHLIN	HAMMOND	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	JOS E SEAGRAM & SONS	LAWRENCEBURG	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	JOSLYN STAINLESS	FORT WAYNE	IN	COMP MONIT EVAL	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	KITCHEN KOMPACT	JEFFERSONVILLE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	LEVER BROTHERS	HAMMOND	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MARION CO GEN HOSP	INDIANAPOLIS	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MARTIN MARIETTA AGGR	TERRE HAUTE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MIDLAND GLASS	TERRE HAUTE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MILES LABORATORIES	ELKHART	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NIPSCO	GARY	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	OLIN CORP FILM	COVINGTON	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PFIZER	TERRE HAUTE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	PULLMAN STANDARD	HAMMOND	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	ROSE HULMAN INST	TERRE HAUTE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SCHENLEY DISTILLERS	LAWRENCEBURG	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SCHENLEY DISTILLERS	LAWRENCEBURG	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SIBLEY [illegible] & FOUND	SOUTH BEND	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SISTERS OF PROVIDENCE	ST MARY OF WOODS	IN	COMP MONIT EVAL	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SQUARE D	PERU	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	STERLING BREWERS	EVANSVILLE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	T J ATKINS	JEFFERSONVILLE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	T J ATKINS	JEFFERSONVILLE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TERRE HAUTE MALLEB	TERRE HAUTE	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	THATCHER GLASS	LAWRENCEBURG	IN	COMP MONIT EVAL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UNIROYAL	MISHAWAKA	IN	COMP MONIT EVAL	[illegible]	[illegible]

FIGURE 9-1
[illegible]

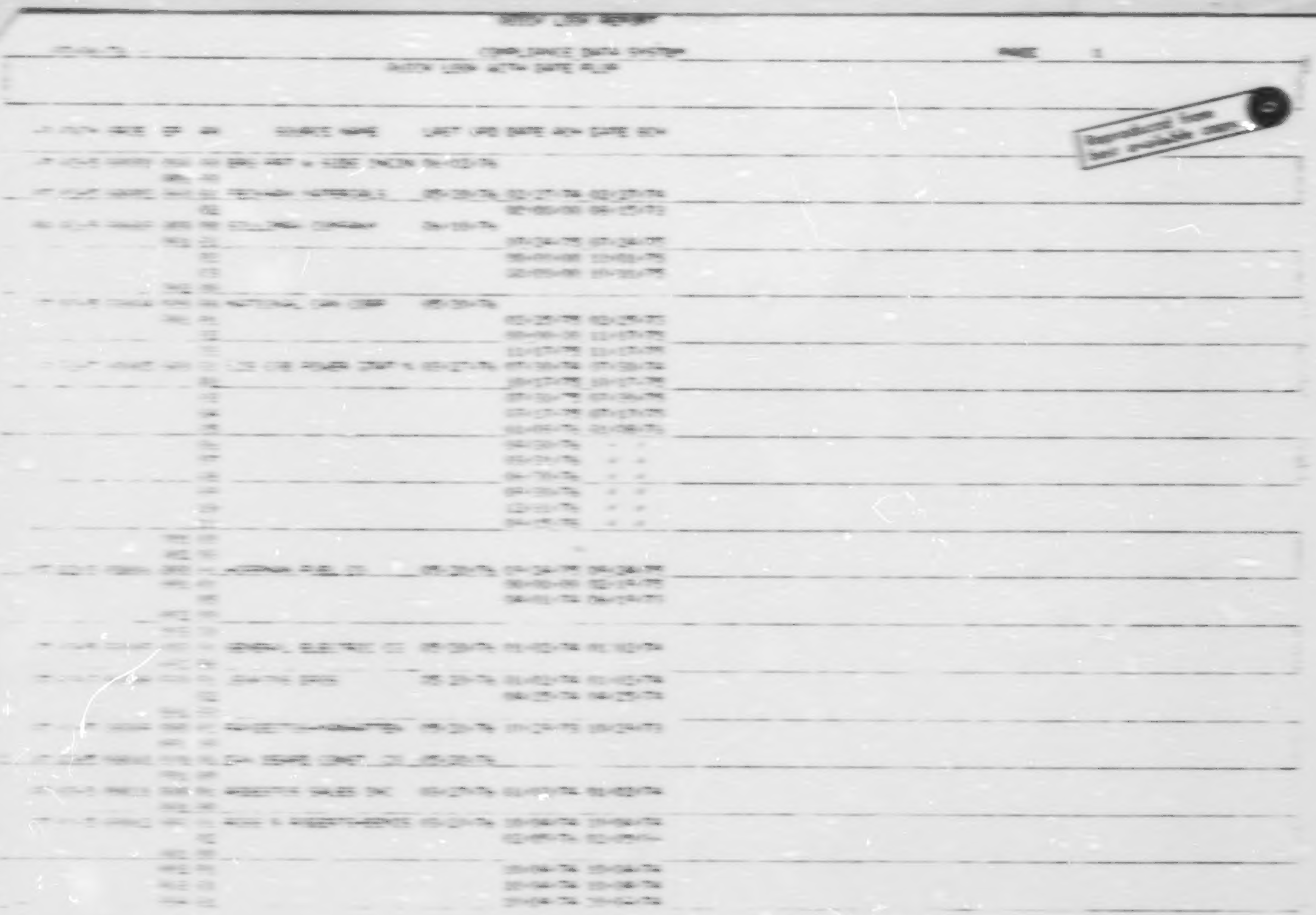

Figure 9-1A
Quick Look Report with Data Suppression

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```
                              QUICK LOOK REPORT
                            COMPLIANCE DATA SYSTEM                              PAGE   1
09/25/76             ILLINOIS AND INDIANA COMPLIANCE MONITORING

ST CNTY SRCE  SP  AR      SOURCE NAME            CITY NAME       ST  ACTION DESCRIP   D SCH  D ACH

15 2440 00004 000 01 AMERICAN CAN             INDIANAPOLIS     IN  COMP MONIT EVAL [illegible] [illegible]

15 2340 00002 000 01 AMERICAN OIL             WHITING          IN  COMP MONIT EVAL [illegible] [illegible]
15 2340 00056 000 01 AMERICAN OIL CO          HAMMOND          IN  COMP MONIT EVAL [illegible] [illegible]

15 2340 00006 000 01 AMERICAN STEEL FNDRY     HAMMOND          IN  COMP MONIT EVAL [illegible] [illegible]

15 4260 00026 000 01 ANACONDA ALUMINUM        TERRE HAUTE      IN  COMP MONIT EVAL [illegible] [illegible]
15 2340 00008 000 02 ATLANTIC RICHFIELD       EAST CHICAGO     IN  COMP MONIT EVAL [illegible] [illegible]

15 3700 00004 000 01 BENDIX                   SOUTH BEND       IN  COMP MONIT EVAL [illegible] [illegible]

15 4020 00004 000 01 BUCYRUS ERIE             EVANSVILLE       IN  COMP MONIT EVAL [illegible] [illegible]
15 3330 00001 000 01 CAM-TEX [illegible]      JAMES [illegible] IN  COMP MONIT EVAL [illegible] [illegible]

15 1940 00003 000 01 CHRYSLER                 KOKOMO           IN  COMP MONIT EVAL [illegible] [illegible]
15 2440 00012 000 01 CHRYSLER                 INDIANAPOLIS     IN  COMP MONIT EVAL [illegible] [illegible]

15 2440 00041 000 02 CITIZENS GAS & COKE      INDIANAPOLIS     IN  COMP MONIT EVAL [illegible] [illegible]

15 2440 00040 000 01 ELI LILLY                INDIANAPOLIS     IN  COMP MONIT EVAL [illegible] [illegible]

15 1940 00005 000 01 GMC                      KOKOMO           IN  COMP MONIT EVAL [illegible] [illegible]
15 2440 03003 000 01 GMC                      ANDERSON         IN  COMP MONIT EVAL [illegible] [illegible]

15 2440 00010 000 02 GMC                      INDIANAPOLIS     IN  COMP MONIT EVAL [illegible] [illegible]

15 0700 00013 000 02 HAMS CANDEY              [illegible]      IN  COMP MONIT EVAL [illegible]
15 3700 00042 000 01 INDIANA & MICH ELEC      MISHAWAKA        IN  COMP MONIT EVAL [illegible] [illegible]

15 3440 00003 000 01 INDIANA KENT GAS         MOUNT VERNON     IN  COMP MONIT EVAL [illegible] [illegible]

15 4260 00009 000 01 INDIANA GAS & CHEM       TERRE HAUTE      IN  COMP MONIT EVAL [illegible] [illegible]
15 2340 00015 000 02 INLAND STEEL             EAST CHICAGO     IN  COMP MONIT EVAL [illegible] [illegible]

15 4220 00009 000 01 INTERNATIONAL STEEL      EVANSVILLE       IN  COMP MONIT EVAL [illegible] [illegible]

15 0340 00009 000 01 INTNL HARVESTER          FORT WAYNE       IN  COMP MONIT EVAL [illegible] [illegible]
15 2340 00027 000 01 JONES & LAUGHLIN         HAMMOND          IN  COMP MONIT EVAL [illegible] [illegible]
```

FIGURE 9-2
SAMPLE DOUBLE SPACED QUICK LOOK REPORT

9.1.5 Source Data Report

The Source Data Report is the most comprehensive report available from the Retrieval. All data elements for a facility are included on this report; this is the only report which gives complete source information, source comment information, point information, point comment information, action information, and action comment information.

Each new facility is printed on a new page. Facilities with many points and actions use multiple pages per facility.

For those in charge of maintaining the accuracy of the CDS Masterfile, Source Data Reports by state provide an essential coding tool. For those interested only in a part of the Masterfile, report selection criteria can be based on any retrievable data elements.

There are four level options available, and one of these four levels must be specified in the selection criteria. Level A provides a printout of all data for a facility. Level S provides only source and source comment data. Level P provides all data except action and action comment data. Level C provides data for only those source, point, or action levels which meet the user's selection criteria.

Although Source Data Reports can be sorted by any user-selected data elements retrievable on the Masterfile, users should not select point or action level data elements as their major sort key; in order to produce a meaningful report, users should keep all of the records for a given facility together. If no user sort key is specified, Source Data Reports are printed in the Masterfile sort order: Region, State, County, Source, Point, and Action Numbers.

Figure 9-3 gives a sample of a Source Data Report.

```
INLAND STEEL                    SOURCE DATA REPORT AS OF [illegible]                    PAGE   37

[illegible] SOURCE                         COMPLIANCE DATA SYSTEM                       INLAND STEEL
[illegible]              ILLINOIS AND INDIANA COMPLIANCE MONITORING                     3210 WATLING
   IN LAKE                                                                              EAST CHICAGO IN [illegible]

[illegible]

COMMENT 1     [illegible] -FEDERAL ORDER ISSUED

[illegible]   [illegible] SOURCE             SOURCE CMPT [illegible]
[illegible]   [illegible]                    SOURCE SIP  [illegible]
                                             SOURCE ECAT [illegible]

   ACTION 01  [illegible]   TYPE [illegible] NOTICE OF VIOLATION ISSUED
                                        RESULTS [illegible]           STAFF [illegible]
   ACTION 02  [illegible]   TYPE [illegible] EPA INSPECTION
                                        RESULTS [illegible]           STAFF
   ACTION 03  [illegible]   TYPE [illegible] COMPLIANCE MONITORING EVALUATION
                                        RESULTS [illegible] ACTION ADVISED   STAFF
   ACTION 04  [illegible]   TYPE [illegible] EPA ORDER ISSUED
                                        RESULTS [illegible]           STAFF
   ACTION 05  [illegible]   TYPE [illegible] NOTICE OF VIOLATION ISSUED
                                        RESULTS [illegible]           STAFF [illegible]
   ACTION 06  [illegible]   TYPE [illegible] NOTICE OF VIOLATION ISSUED
                                        RESULTS [illegible]           STAFF [illegible]
   ACTION 07  [illegible]   TYPE [illegible] NOTICE OF VIOLATION ISSUED
                                        RESULTS                       STAFF

[illegible]  BLAST FURNACE # 1-GENERAL       POINT CMPT [illegible] COMPL-CERTIFICATION   [illegible]
[illegible]  [illegible]                     POINT SIP   NOT SPECIFIED                    [illegible]
                                             POINT ECAT  UNKNOWN

[illegible]  BLAST FURNACE # 1-GENERAL       POINT CMPT [illegible] NO APPLIC STATE REG   [illegible]
[illegible]  [illegible]                     POINT SIP   NOT SPECIFIED                    [illegible]
                                             POINT ECAT  UNKNOWN

[illegible]  BLAST FURNACE # [illegible]     POINT CMPT [illegible] COMPL-CERTIFICATION   [illegible]
[illegible]  [illegible]                     POINT SIP   NOT SPECIFIED                    [illegible]
                                             POINT ECAT  UNKNOWN

[illegible]  BLAST FURNACE # [illegible]     POINT CMPT [illegible] NO APPLIC STATE REG   [illegible]
[illegible]  [illegible]                     POINT SIP   NOT SPECIFIED                    [illegible]
                                             POINT ECAT  UNKNOWN

[illegible]  BLAST FURNACE # [illegible]     POINT CMPT [illegible] COMPL-CERTIFICATION   [illegible]
[illegible]  [illegible]                     POINT SIP   NOT SPECIFIED                    [illegible]
                                             POINT ECAT  UNKNOWN

[illegible]  BLAST FURNACE # [illegible]     POINT CMPT [illegible] NO APPLIC STATE REG   [illegible]
[illegible]  [illegible]                     POINT SIP   NOT SPECIFIED                    [illegible]
                                             POINT ECAT  UNKNOWN

[illegible]  BLAST FURNACE # [illegible]     POINT CMPT [illegible] COMPL-CERTIFICATION   [illegible]
[illegible]  [illegible]                     POINT SIP   NOT SPECIFIED                    [illegible]
```

FIGURE 5-1

SAMPLE SOURCE DATA REPORT

9.1.4 Milestone Report

Two different types of Milestone Reports are available to the user. The first is the Standard Milestone Report, which tallies Compliance Status Code by State. The second is the Variable Milestone Report. It is similar to the Standard Milestone Report, but tallies are based on the two data elements chosen by the user. The presence of a 50 card in the retrieval selection cards indicates that the report will be a Variable Milestone Report rather than a Standard Milestone Report.

Standard Milestone Report

To facilitate National Reporting requirements by managers, the Standard Milestone Report was designed to provide a tally of the Compliance Status Code of selected emission points within a Region. The report shows the number of emission points broken down by Compliance Status for the States within a Region and for the Region as a whole. Subtotals are produced for emission points in Compliance, Out of Compliance, and of Unknown Compliance. Regional totals are developed for only those States included in the selection criteria.

Since the numbers developed by the Milestone Report represent the totals of all emission points selected by the Retrieval, great care must be exercised in preparing the appropriate retrieval selection cards in order to create a meaningful report. For most Milestone Reports, selection will be based on point number 000. For specific reports, such as count of all Federal Facilities, the selection criteria must be based on the Federal Facility Code.

Figure 9-4 gives a sample Standard Milestone Report. The selection criteria included only New Source Performance sources in Region V.

Variable Milestone Report

The Variable Milestone Report produces a tally of data based on two data elements which are selected by the user. Any two retrievable data elements at the source, point or action level may be chosen. One data element determines the rows that will be produced. The other data element determines the columns that will be produced. Note that the user chooses the row data element and the Variable Milestone Report will produce one line of output for each different value found on the file for that data element. To determine which values for the column data element are to be printed, the user supplies the column data element and the specific values for that data element. A maximum of ten values will be accepted.

As in the Standard Milestone Report, the totals produced by the Variable Milestone report reflect only data selected by the retrieval. Care should be taken in preparing retrieval selection cards so that the report produced is meaningful.

Figure 9-4A shows a sample Variable Milestone Report.

MILESTONE REPORT

[illegible]

COMPLIANCE DATA SYSTEM
[illegible] SOURCE PERFORMANCE MILESTONE

COMPLIANCE STATUS	REGION 5 TOTAL	ILLINOIS 14	INDIANA 15	MICHIGAN 23	MINN 24	OHIO 36	WISCONSIN 52
0 COMPL STATUS UNKNOWN	10	2	3			1	4
1 NOT IN COMPL-NO SCHED	7	3	1		1	2	
2 IN COMPL-SOURCE TEST	11	7		1	1	2	
3 IN COMPL-INSPECTION							
4 IN COMPL-CERTIFICATION	26	7	6	1	2	4	6
5 IN CMP WITH SCHEDULE							
6 NOT IN CMP WITH SCHD							
7 UNKNOWN CMP WITH SCHD							
8 NO APPLIC STATE REG							
9 IN-COMPL-SHUT DOWN							
TOTALS FOR 2,3,4,5,9	37	14	6	2	3	6	6
TOTALS FOR 1 AND 6	7	3	1		1	2	
TOTALS FOR 0 AND 7	10	2	3			1	4
GRAND TOTALS	54	19	10	2	4	9	10

FIGURE 9-4

SAMPLE STANDARD MILESTONE REPORT

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9.1.5 Questionnaire Report

This report has been used by some regions for direct reporting by State Agencies. The report format provides a turnaround document used to report the status of various actions. Identifying data is printed on the questionnaire and it is then sent to the State Agency for completion. After the State returns the filled-in report, the data is keypunched for re-entry to the CDS data base.

The questionnaire indicates all increments of progress that have been scheduled during a period specified by the Region. Status Code and Date Achieved should be listed in the appropriate columns. Although the Quick Look Report may serve the same purpose as the Questionnaire Report, the Questionnaire provides more information about the source and has additional room for comments.

Figure 9-5 shows a sample Questionnaire for Region X. Selection was based on actions scheduled but not achieved between June 1, 1976, and October 1, 1976. Sorting was based on Source Name.

ACTIONS SCHEDULED BUT NOT ACHIEVED

[illegible] PAGE [illegible]

COMPLIANCE DATA SYSTEM QUESTIONNAIRE
FOR STATE OF
IDAHO

STATUS CODES 1-ACTION ACHIEVED 2-ACTION NOT ACHIEVED

POINT SOURCE IDENTIFICATION	EMISSION POINT/ POLLUTANT	STATE/LOCAL REGL. CONTROL FACILITY POINT ID	SCHEDULE INCREMENTS OF PROGRESS	ACHIEVEMENT OF INCREMENTS OF PROGRESS
TWIN FALLS [illegible] AMALGAMATED SUGAR	[illegible] BOILER	REGULATION [illegible]	[illegible]	STATUS CODE COL 71
		REPLACE BY A FOSTER-WHEELER BOILER	[illegible]	DATE ACHIEVED-COL [illegible] MO DAY YR
STATE REGISTRATION	PART. MATTER		[illegible]	COMMENTS
		[illegible]	COL [illegible]	
TWIN FALLS [illegible] AMALGAMATED SUGAR	FOSTER-WHEELER B-[illegible]	[illegible]	[illegible]	STATUS CODE COL 71
		REPLACE [illegible] BOILER [illegible]	[illegible]	DATE ACHIEVED-COL [illegible] MO DAY YR
STATE REGISTRATION	PART. MATTER	[illegible]	[illegible]	COMMENTS
		[illegible]	COL [illegible]	
[illegible] CITY [illegible] CITY CODE [illegible] PAVING	ASPHALT PLANT	[illegible]	[illegible] FINAL COMPLIANCE	STATUS CODE COL 71 DATE ACHIEVED-COL [illegible] MO DAY YR
STATE REGISTRATION [illegible]	PART. MATTER	[illegible]	[illegible]	COMMENTS
		[illegible]	COL [illegible] [illegible] CODE COL [illegible] [illegible] COL [illegible]	
TWIN FALLS [illegible] [illegible] PAVING [illegible]	ASPHALT PLANT	REGULATION [illegible]	[illegible] FINAL COMPLIANCE	STATUS CODE COL 71 DATE ACHIEVED-COL [illegible] MO DAY YR
STATE REGISTRATION [illegible]	PART. MATTER	MODIFY OR INSTALL NE-[illegible] EQUIPMENT AS NECES-SARY [illegible]	[illegible] COL [illegible] [illegible] CODE COL [illegible] [illegible] COL [illegible]	COMMENTS

EXHIBIT 9-5

SAMPLE QUESTIONNAIRE

9.1.6 Action Summary Report

This report is a summary report of what actions are in the system and lists these actions by action type. The report gives two lines of information for each action which satisfies the selection criteria. As opposed to the Quick Look Report, this report lists comments. If no sequence is specified, the report will be sequenced first by Action Type and then the Masterfile sequence.

Figure 9-6 shows a sample Action Summary Report for Region II. Selection was based on actions applicable to the entire source (point 000). Sorting was based on State and City.

9.1.7 Compliance-Action Report

A new report format has been developed for the CDS Retrieval Package. This report, called the Compliance-Action Report, summarizes the compliance status and enforcement actions for selected facilities on the CDS masterfile.

Figure 9-6A is a sample of the Compliance-Action Report. It is available by coding "CA" on the Report Format 20 Card. The left side of the printout contains basic source information such as Source Name, AQCR, City, State, and Staff Number for the sources selected by the retrieval. The middle columns contain the Point Number, Compliance Status, and Emission Category of the points selected by the retrieval. The right side of the printout contains the Date Achieved for nine specific action types:

- Federal Inspections
- State Inspections
- Federal Notices of Violation

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[illegible] COMPLIANCE DATA SYSTEM PAGE 1
ACTION SUMMARY FOR ACTIONS > 50

TYPE OF ACTION
EPA INSPECTION

STAFF MEMBER AND TITLE	SOURCE NAME AND LOCATION	DATE SCH DATE ACH	STATUS CODE	STATE NO. COUNTY NO.	SOURCE NO. POINT NO.	POLLUTANT
[illegible] ENGINEER	[illegible] [illegible] TWP NJ	[illegible] [illegible]	[illegible] ACHIEVED	31 [illegible]	[illegible] [illegible]	
V PITRUZZELLO ENGINEER	SUSSEX ROAD MATERIAL ANDOVER TWP NJ	5/14/75 5/14/75	01 ACHIEVED	31 [illegible]	[illegible] [illegible]	
V PITRUZZELLO ENGINEER	SUSSEX ROAD MATERIAL ANDOVER TWP NJ	9/29/75 9/29/75	01 ACHIEVED	31 [illegible]	[illegible] [illegible]	
V PITRUZZELLO ENGINEER	SUSSEX ROAD MATERIAL ANDOVER TWP NJ	[illegible] / /	[illegible]	31 [illegible]	[illegible] [illegible]	
V PITRUZZELLO ENGINEER	ANDOVER INDUSTRIES ANDOVER TWP NJ	5/14/75 5/14/75	01 ACHIEVED	31 [illegible]	[illegible] [illegible]	
COMMENTS 1 SURVEILLANCE COMPLIANCE						
V PITRUZZELLO ENGINEER	ANDOVER INDUSTRIES ANDOVER TWP NJ	9/29/75 9/29/75	01 ACHIEVED	31 [illegible]	[illegible] [illegible]	
COMMENTS 1 TEMPORARILY SHUT DOWN						
V PITRUZZELLO ENGINEER	ANDOVER INDUSTRIES ANDOVER TWP NJ	[illegible] / /	[illegible]	31 [illegible]	[illegible] [illegible]	

FIGURE 9-6

SAMPLE ACTION SUMMARY REPORT

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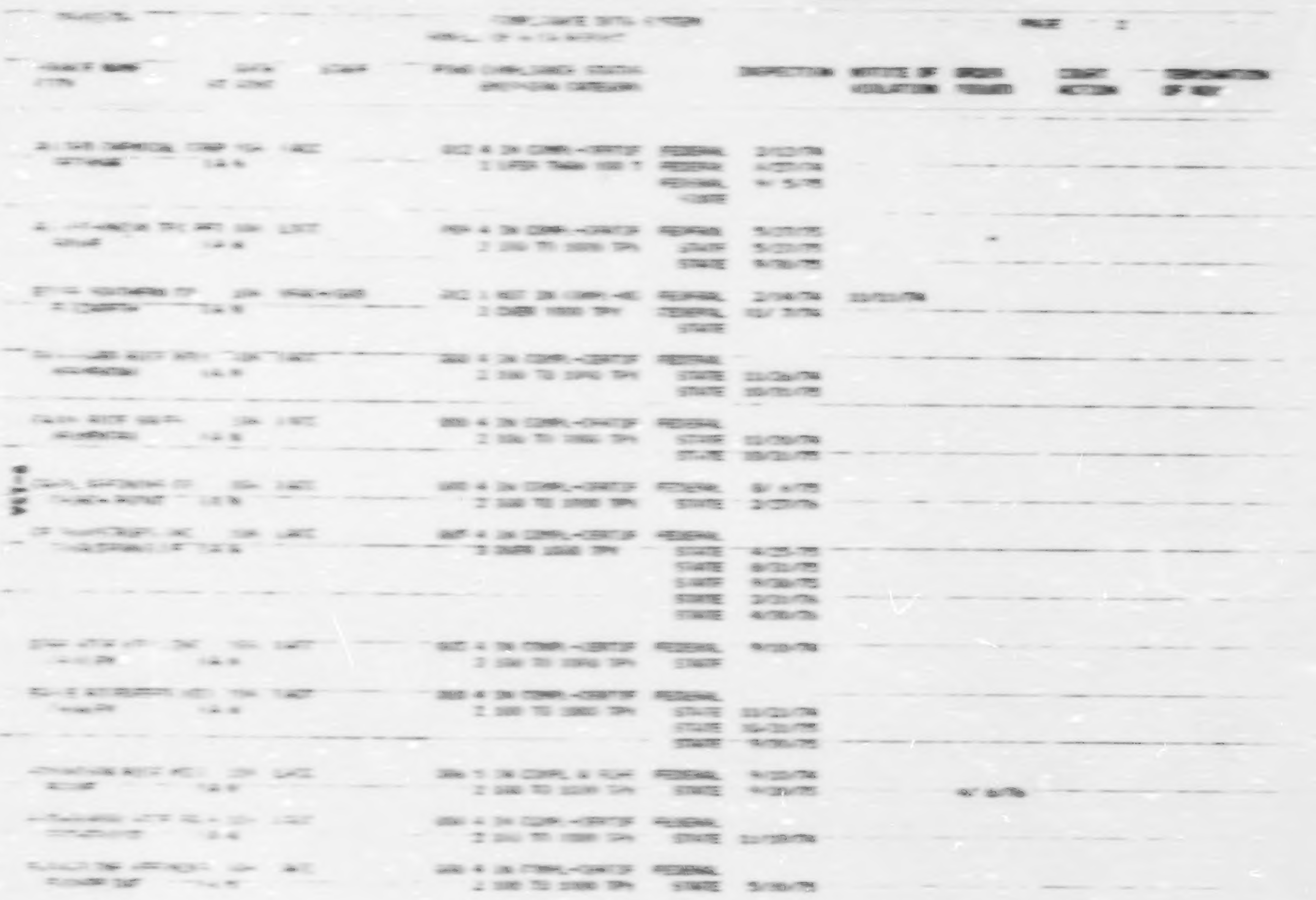


Figure 9-4A
Sample Compliance-Action Report

- State Notices of Violation
- Federal Orders Issued
- State Orders Issued
- Federal Court Actions
- State Court Actions
- Federal Terminations of Notices of Violation

Because each region has a different set of action types to represent the above actions, the CA report is operational only for Region 6. If other regions wish to utilize this report, they must specify the action types which correspond to the above actions.

When multiple actions with the same action type are selected by the retrieval, multiple lines are printed, one for each Date Achieved.

In using this report, the following items should be kept in mind:

- The retrieval selection logic is the same as for any other retrieval. Users should be careful to specify in their selection criteria only those sources and points of interest to them. No selection cards are needed to limit the report to the nine specific action types available on the report, but selection criteria may be used on other action level data elements such as Date Scheduled.

- The report is produced only in one sort order: alphabetical by Source Name within a state. If other reports are selected on the 20 Card at the same time as the CA, the other reports will be printed in the order specified on the Report Sequence card.

- Totals for each of the nine action types are produced at the end of the report. These totals are designed to meet a number of reporting requirements.

9.3 Check List for Request Submission

The following list of steps is provided as a guide for users submitting requests for retrievals. The list is roughly sequential, in that an inexperienced user would proceed in chronological order.

A. Determine what you want.

   1. Review the need for information from the data base. Determine the best way to respond using the Retrieval Package. What information does the ultimate user need to meet his requirements?

B. Code the form.

   1. Formulate a meaningful title for the report(s) and enter it on the "01" card line. It will be printed on each output page. Also, code the region code, and the level code only if the Source Data Report is requested.

   2. Create the selection logic (the "10" cards) to be used to extract needed data items. This is the most complex part of the job, and it is suggested that the instructions be reviewed the first few times the Package is used.

   3. Select the best format from those available. Use more than one if appropriate. Put the correct format on the "20" card line, using the proper 2-digit abbreviation (SD, QL, MR, AC or Q2).

   4. Select the sequence of the items in the report, and fill in the "30" card line on the form.

   5. Review entries on the form to see that all data element abbreviations are correct.

   6. If the "Quick Look" report format is being requested, add the data elements needed on the "40" line so they will appear on the output. Do not exceed the print line size. Check the abbreviations.

C. Verify the completed form.

   1. Review the request form to see that all needed entries have been made.

   2. If the selection logic to be used is fairly complex, mentally "walk through" several cases and see if the logic meets user requirements.

D. Punch retrieval cards.

   1. Arrange to have punched cards prepared from the request form.

   2. Check the cards to ensure that the data was punched correctly.

E. Build your retrieval deck of cards.

   1. Add a job card priority card, and any routing or hold cards to the deck of cards. Check for appropriate account number, printing class, output line count, and execution time. Terminal operations personnel can provide assistance.

   2. Add the two JCL cards described in Section 9.4. They go just before the "01" card.

      Add/*EOF card as the last card in the deck.

   3. Review the sequence of cards.

F. Submit job and wait.

   1. Submit the deck to the central computer facility (OSI) via the locally available terminal.

G. Review output.

   1. The printout should be returned within a few hours, or at most on an overnight basis. Check with the terminal operator if not received.

   2. When the printout is returned, check the edit list to determine if any error was detected. If necessary, correct the cards and resubmit the deck.

   3. Review the decoded parameters on the edit page to see if the instructions (request cards) were decoded as the requestor intended.

   4. If possible, check the retrieval package processing of a source known to the requestor to verify that the select logic worked as anticipated. In any case, review the results to determine if the desired information was extracted.

   5. Call TRC (203-563-1431) if you are having difficulties getting the desired output.

9.3 Preparing Retrieval Selection Cards

To request reports from the Reporting Program, the Regional user must prepare a Report Request Form as shown in Figure 9-7. The Report Request Form contains a layout of the standardized cards which will be submitted to the central data center. In addition, the Report Request Form contains pertinent information necessary to fill out the form.

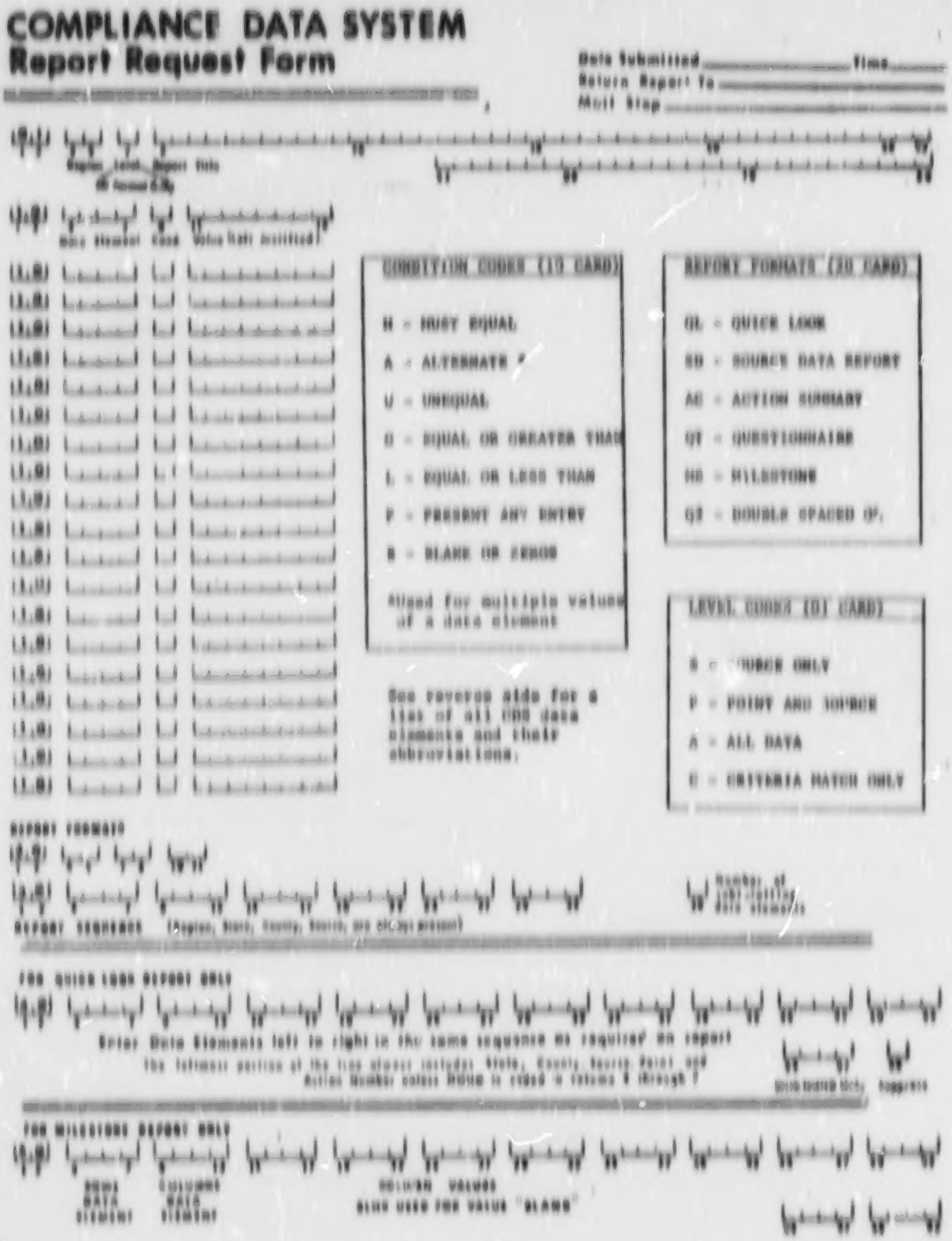
The standardized cards used for requesting reports are listed here and described in detail in the following paragraphs.

CARD	TITLE
01	Title Card
10	Logic Selection Card
20	Report Format Card
30	Report Sequence Card
40	Quick Look Data Selection Card
50	Variable Milestone Data Selection Card

Card 01 - Title Card

Card 01 has entry spaces for the Card Code Number, Region, Level and Report Title. The Card Code Number, 01, must be put into columns 1 and 2. The Region code, columns 4 and 5, is the numeric region number of the EPA Region requesting the report. A leading 0 must be placed before all numbers less than 10. The level code (column 7) determines the level of data that will be included for a Source Data Report. However, the level code is necessary *only* when requesting a Source Data Report. This column may be left blank when requesting the remainder of the six types of reports.

Level codes which may be used when requesting a Source Data Report are shown in the upper right-hand corner of the Report Request Form and are listed here.



COMPLIANCE DATA SYSTEM
Report Request Form

Date Submitted ______ Time ______
Return Report To ______
Mail Stop ______

Region Level Report Title

Data Element Code Value (left justified)

CONDITION CODES (1D CARD)

M = MUST EQUAL

A = ALTERNATE *

U = UNEQUAL

G = EQUAL OR GREATER THAN

L = EQUAL OR LESS THAN

P = PRESENT ANY ENTRY

B = BLANK OR ZEROS

*Used for multiple values of a data element

REPORT FORMATS (2D CARD)

QL = QUICK LOOK

SD = SOURCE DATA REPORT

AC = ACTION SUMMARY

QT = QUESTIONNAIRE

MS = MILESTONE

QD = DOUBLE SPACED QL

LEVEL CODES (1D CARD)

S = SOURCE ONLY

P = POINT AND SOURCE

A = ALL DATA

C = CRITERIA MATCH ONLY

See reverse side for a list of all CDS data elements and their abbreviations.

REPORT FORMATS

Number of sub-totaling data elements

REPORT SEQUENCE (Region, State, County, Source, are always present)

FOR QUICK LOOK REPORT ONLY

Enter Data Elements left to right in the same sequence as required on report

The leftmost portion of the line always includes: State, County, Source Point and Action Number unless NONE is used in Columns 6 through 7

Double Spaced Only Suppress

FOR MILESTONE REPORT ONLY

ROWS DATA ELEMENT

COLUMNS DATA ELEMENT

COLUMN VALUES

ALSO USED FOR VALUE "BLANK"

FIGURE 9-7

RETRIEVAL REQUEST FORM

S - Source Only
Only source level information is included in the report--no point or action data.

P - Point + Source
No action data is included in the report. Only those points which match point and/or action level selection criteria are included.

A - All Data
If a match is made on the selection criteria anywhere in the source, point, and/or action data, all the data for that source is given.

C - Criteria Match Only
Only the information satisfying the selection criteria is included. This level code would be used when only the actions (plus their respective points and sources) which meet the selection criteria are desired in the report. It should be noted that the selection criteria (type "10" cards) should include action record data elements, or this level code will result in the same report level as an S or a P level code.

The Report Title (columns 9-50) is the user specified title which will appear on every page of the output report. Titles should be carefully chosen and include an English language description of the selection criteria to identify various printouts which are produced. Experience has shown that if a number of reports are prepared without adequate titles, it is difficult to remember the specific criteria for each report and information may be misused.

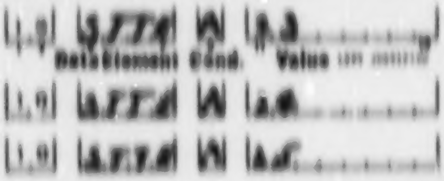
Card 10 - Logic Selection Card

Card 10 provides the user with entry spaces for the Card Code Number, Data Element, Condition Code and Value. Specific data records to be selected for inclusion in the output reports are obtained by using card 10. Up to twenty cards can be submitted in a given retrieval. The Data Element (columns 4-7) field is used to specify a particular data element to be used in the logic selection of records. The data elements are identified by the abbreviations shown in the box in the center of the request form. For example, the abbreviation for "region" is "REGN." Use of other abbreviations will cause an error and the run will be aborted. Only the data elements indicated in the table can be used for logic selection purposes.

The Condition Code (column 9) is used to specify how the data element is selected. The entry is a single alphabetic character selected from the codes shown on the right side of the form. A brief explanation of the codes follows:

- M = Must Equal - A record will be excluded unless it equals the value specified in the value field. When testing for a value of blank, use the condition code M with no value entry in columns 11 through 18.

- A = Alternate - This code provides the capability of including records with different values for the same data element. For example, three states might be selected and all given the condition code of A on three separate 10 cards. The output report would include the data for all three states. If an M had been used, no output would be received because clearly no record will match all three state codes. For example:


1,9
STTE
Data Element
Cond.
Value
1,9
STTE
1,9
STTE

- U = Unequal - This code excludes records of the value specified in the value field. It would be used where specific values are not wanted on the report but all other data is desired.

- G = Equal or Greater Than - This code can be used to include values greater than or equal to a specified value. Or, this code may be used in combination with the L code (Equal or Less Than) to provide a range of values, such as all the action types equal to or above 50, and equal to or below 70. More importantly, it can be used with the "date scheduled" or "date achieved" field to provide a chronological range. The date should be entered in month, day, year, sequence. For example, the following entries would provide a range between January 1 and the end of 1974.

| 1 0 | D T I C | G | 0 1 0 1 7 4 |
Data Element Cond. Value (left justified)
| 1 0 | D T I C | L | 1 2 3 1 7 4 |

- o L = Equal or Less Than - This code is the opposite of the G code and includes items which are equal or less than the value specified. If a comparison is made using a field which is either alphabetic or blank, the results will depend on the exact entries found in the data base. Letters will compare lower than numbers, and blanks will compare the lowest.

- o P = Present-Any-Entry - This condition code will qualify an entry if the entire field is not blank or zero. That is, if any entry has been made, the record will qualify for inclusion on the output. No "value" entry is required in columns 11-18.

- o B = Blank - This is the opposite of the P code and will qualify an entry where the specified field is completely blank or zero. No "value" entry is required. Use the condition code "N" to select only blanks or only zeros.

Value Field (columns 11-18) is used to enter the actual value to be used for comparison with the data base. In some cases, this is the coded data actually carried in the data field. It is not used if the condition code does not call for a value. Entries should be made beginning in column 11, the left-most portion of the field.

The number of digits for each data element is given on the Retrieval Request form immediately to the right of the Retrieval abbreviation for that data element. If a data element has fewer than eight positions, the number of digits in columns 11 on up must correspond exactly to the number of digits on the data element. For example, if a selection is based on State Code, only columns 11 and 12 may be used on the selection card.

If a data element, such as Source Number, has five digits, users must code 00069 in columns 11 through 15; the retrieval logic will not work if only 69 is coded into columns 11 and 12.

If a data element, such as Source Name, has more than eight digits, the Retrieval will base its selection logic only on the first eight positions of Source Name. No value may be made on the selection card beyond column 18.

Note that entries in the value field must be exactly as shown in the data base. For example, if a state code is desired, the numeric code must be entered. If a regulation has been entered in several ways, such as REG 31 or REG-31, two alternate entries must be made to obtain both results.

Card 20 - Report Format Card

This card allows the region to select up to three output formats in a given run, and must be included. The codes to be used are shown in the "report formats" block at the lower right of the input form. Entries should be made in columns 4-5, 7-8, and 10-11. Start with the left-most field. The available report formats are:

QL = Quick Look
SD = Source Data Report
AS = Action Summary
QT = Questionnaire
MS = Milestone
Q2 = Double Spaced QL

Card 30 - Report Sequence Card

The report sequence card permits the user to select the sequence of entries on the reports he has selected. For example, sources might be alphabetized within a state or grouped by pollutant code. In every case, reports will be sequenced by the following elements after (or in the absence of) the selected user sequence--Action type (Action Summary Report only) or Region, State, County, Source, Point, and Action Number for all other reports.

Entries are made using the four-digit abbreviation for individual data elements shown in the block in the center of the page. For example, to sequence by source name, "SNME" is entered. Care must be used in limiting the length of the sequence elements to 40 digits. For example, a sequence of Source Name (20 digits) and Process Description (25 digits) would result in a fatal edit error as the sequence length is 45 digits. However, in utilizing all six possible sequence entries with SIC Code (5 digits), Federal Facility Code (1 digit), Active Passive Code (1 digit), Compliance Status Code (1 digit), Pollutant (2 digits), and SIP Code (1 digit), we only have a total of 11 digits, well within the 40-digit limit.

It is important to note that in certain cases it is possible to request a meaningless report because of illogical sequencing. For example, a user sequence of Date Scheduled, especially on a source data report, would result in the action records of several sources being separated and grouped away from their sources. However, the same user intent may be achieved by requesting a sequence of Source (Name or

Number) followed by Date Scheduled. This would keep all the actions with the correct source. A rule of thumb to follow would be to ensure that the primary, or first, sequencing element is on the source level, and that it is unique to each source (such as Source Number or Source Name). This rule mainly applies to Source Data Reports. Quick Look reports, being one-line reports where no line is related to any other line, may be sequenced in any manner with no problem.

Page breaks and subtotals are available on the QL report by placing a number ranging from 1 to 6 in column 39 of the 30 card. For example, if column 39 of the 30 card is left blank, no page breaks are produced. A 1 in column 39 will produce a page break on the first data element of the 30 card. A 2 in column 39 will produce a page break on the first two data elements of the 30 card. A 3 in column 39 will produce a page break on the first three data elements of the 30 card. Page breaks can be obtained on a maximum of 6 data elements.

Example:

```
        30 STTE CNTY SNME                1
Columns 1  4    9    14                  39
```

The above card will provide page breaks with subtotals by state.

```
        30 STTE AQCR CNTY SNME           2
Columns 1  4    9    14   19             39
```

The above card will provide page breaks with subtotals by state and by AQCR.

Card A0 - Quick Look Data Selection Card

Card A0 provides a means to request specific data elements for inclusion on the single line printed for each match on the Quick Look Report output. Data elements should be entered from left to right in the same sequence as required on the report. Data element abbreviation used should be the same as those shown in the block of Figure 9-7.

Note that State, County, Source Number, Emission Point Number, and Action Number Codes will automatically be placed at the left most side of the line by the system. However, if the user does not wish to have these data elements on the Quick Look Report, these data elements can be suppressed by coding NOHD in columns 4-7. The total QL print line length is determined as follows:

- o With the NOHD option, up to 132 print positions are available. The sum of the digits listed in the--NUMBER OF DIGITS-A0 CARD--column of the Report Request Form must be 132 or less for the data elements on the A0 card.
- o With the regular heading of State, County, Source, Point, and Action Numbers, up to 110 print positions are available. The sum of the digits listed next to each selected data element in the NUMBER OF DIGITS-A0 CARD column of the Report Request Form must be 110 or less for the data elements on the A0 Card.

If the data elements on to A0 Card require more space than is available on the 132 character print line, the QL will not be produced. Data elements are printed left to right in the same sequence as they are coded.

If a Quick Look Report with data element suppression is desired, a '1' must be coded in column 60 of the A0 card. Using this option, source level data will print only on a change in source. Point level data will print only on a change in point. Action level data will always print.

Card 50 - Variable Milestone Data Selection Card

The 50 card provides a means to request the row and column data elements to be shown on the Variable Milestone Report. Data element abbreviations should be the same as shown in Figure 9.7. The first data element supplied determines the rows for the report. The second data element determines the columns. Column data element values should be entered from left to right in the sequence desired on the report.

If the user desires to have all blanks as one of his column values, 'BLNK' should be entered as the corresponding value on the 50 card.

Note that the 50 card will be rejected if a Milestone Report (MR) was not requested on the 20 card. It is the presence of the 50 card that determines that the Variable Milestone Report should be produced. If a Milestone Report (MR) was requested on the 20 card and no 50 card is found, the Standard Milestone Report will be generated.

To produce a Variable Milestone Report showing the number of actions for Action Types 01, 02, 03, 04, 05 for all the counties within a state, perform the following steps:

1. Choose an appropriate title on an 01 Card.
2. Use a 10 Card to select the appropriate state.
3. Use 10 Cards to select the desired action types.
4. Code MR on the 20 Card.
5. Code the 50 card as follows:

```
            50  CNTY  ATPE  01  02  03  04  05
Card Column 1   4     9     14  19  24  29  34
```

This request will produce five columns of numbers, one column for each of the selected action types. On the right hand side of the page, totals are generated for all actions for a given county. One line is produced for each value of County Code selected by the retrieval. At the end of the report, totals are produced for each action type and for the number of counties selected.

Up to ten values may be coded on the 50 Card, one value for each column to be totaled. If the data element values to be totaled are less than four positions, the values must be left justified. If the data element values to be totaled are greater than four positions, totals are produced only on the first four positions of the specified data element values.

9.3.1 Special Considerations for Pollutant Compliance Retrievals

Once pollutant compliance and other pollutant data is placed on the Masterfile, it is stored as a repeating data element which can occur up to 10 times. The processing for data such as Facility Capacity or Regional Data Element 9, each of which occurs only once per facility on the Masterfile, is different from the processing of repeating data elements such as Pollutant Compliance Status. There will be no changes to the report selection or the report printing of non-repeating data elements. The following sections describe the changes to the selection, sorting, and printing of repeating data elements such as Pollutant Compliance.

9.3.2 Pollutant Compliance Logic Selection

Associated with each pollutant are the following data elements:

Name	Retrieval Abbreviation
o Pollutant	PLLT
o Pollutant Compliance Status	PCMS
o Pollutant Emission Category	PECT
o Pollutant AQMA Indicator	PAQM
o Pollutant AQCR Indicator	PAQC
o Pollutant Loading	LOAD

Whenever one of the above repeating data elements is used on a 10 Card, each of the ten groups of pollutant data is examined independently to see if the information should be selected for further processing. For example, assume that the Masterfile contains the following four sources:

Source	Source Compliance	Pollutant	Pollutant Compliance
A	4	-	-
B	1	PT	4
		SO	1
C	1	PT	4
		SO	4
		HC	1
D	9	PT	4
		SO	4
		HC	4

The following selection criteria will extract data for Sources B, C, and D

```
10   PLLT   M   PT
10   PCMS   M   4
```

because each of those sources has the selected pollutant and the selected compliance status.

The following selection criteria will extract data for Sources B and C

10 PCMP M 1

because each of those sources has one pollutant out of compliance.

The following selection criteria will extract Sources C and D

10 PLLT M HC

since those two sources contain hydrocarbon data.

Because the selection criteria for repeating data elements are applied independently to each group of data associated with a pollutant, the Condition Code "A" must be used to select a range of values for pollutants or for pollutant compliance status. The alternate logic does not allow users to select only those sources which are in compliance with particulate regulations and are also out of compliance with SO_2 regulations. Users will get no hits with the following selection criteria:

10 PLLT M PT
10 PLLT M SO

9.3.3 Pollutant Compliance Sorting

Quick Look Reports may be sorted by whatever data elements the user needs. Page breaks and sub-totals can be developed for any user selected data elements.

On a Source Data Report users may not sort on any of the repeating data elements present for each pollutant. Pollutant data will print on a Source Data Report as follows:

1. Facility Capacity and Regional Data Elements.
2. If any data exists for particulates, SO_2, hydrocarbons, CO, or NO_x, the data will always be printed in the following order: PT, S2, HC, CO, N2.
3. Pollutants other than PT, S2, HC, CO, and N2 will be printed in the order in which the pollutants were originally input.

A separate line is printed for each pollutant entered via the Card 3.

9.3.4 Printing Pollutant Compliance Data

The presence of repeating pollutant data elements on a Quick Look 40 Card and a Milestone 50 Card require certain restrictions; otherwise, changes to output formats will be minor.

If a source has pollutant compliance data, the pollutant data will print on a Source Data Report directly after the source or source comment data and before the point 000 data. One line will be produced per pollutant. No changes to the Source Data Report will be noticed if there is no pollutant record for the Source.

The Quick Look Report will be significantly affected when repeating pollutant data is requested on the 40 Card. At the present, only source level and pollutant data may be printed on one line. One line will be printed for each pollutant. Suppression of redundant source data will be helpful on this type of report.

The restriction of not printing point or action level data when pollutant data is printed may be lifted at a later date.

Similarly, a variable milestone report which specifies repeating pollutant data on one axis cannot have point or action level data on the other axis. Milestone reports may be requested with source level data items in one direction and repeating pollutants in the other direction. Also, requests may be made for repeating pollutant data items in both directions. For instance, users may need a milestone with pollutants as the row data element and pollutant compliance as the column data element.

Due to the fact that repeating pollutant data elements are not directly related to any point or action level data elements, neither Milestone Reports or Quick Look Reports may be produced with repeating pollutant data together with action and point data. This restriction is necessary because there is no meaningful way to cross-reference multiple pollutants with multiple points and actions.

9.3.5 Sample of a Filled in Retrieval Request

The Quick Look Report shown in Figure 9-1 and the Source Data Report shown in Figure 9-3 were obtained by filling out the Retrieval Request Form shown in Figure 9-8.

The Quick Look Report shown in Figure 9-1A was obtained by filling out the Retrieval Request Form shown in Figure 9-8A.

The Milestone Report shown in Figure 9-4 was obtained by filling out the Retrieval Request Form shown in Figure 9-9.

The Variable Milestone Report shown in Figure 9-4A was obtained by filling out the Retrieval Request Form shown in Figure 9-9A.

The Questionnaire shown in Figure 9-5 was obtained by filling out the Retrieval Request Form shown in Figure 9-10.

The Action Summary shown in Figure 9-6 was obtained by filling out the Retrieval Request Form shown in Figure 9-11.

COMPLIANCE DATA SYSTEM
Report Request Form

Date Submitted ____________ Time ______
Return Report To ____________________
Mail Stop ____________________

Region Level Report Title [illegible]

Data Element Cond Value (left justified)

CONDITION CODES (1D CARD)
M - MUST EQUAL
A - ALTERNATE *
U - UNEQUAL
G - EQUAL OR GREATER THAN
L - EQUAL OR LESS THAN
P - PRESENT ANY ENTRY
B - BLANK OR ZEROS
*Used for multiple values of a data element

REPORT FORMATS (2D CARD)
QL - QUICK LOOK
SD - SOURCE DATA REPORT
AC - ACTION SUMMARY
QT - QUESTIONNAIRE
MS - MILESTONE
QS - DOUBLE SPACED QL

LEVEL CODES (D1 CARD)
S - SOURCE ONLY
P - POINT AND SOURCE
A - ALL DATA
C - CRITERIA MATCH ONLY

See reverse side for a list of all CDS data elements and their abbreviations.

REPORT FORMATS

Number of subtotalling data elements

REPORT SEQUENCE (Region, State, County, Source, are always present)

FOR QUICK LOOK REPORT ONLY

Enter Data Elements left to right in the same sequence as required on report

The leftmost portion of the line always includes: State, County, Source, Point and Action Number unless NONE is coded in Columns 8 through 11

[illegible] [illegible]

FOR MILESTONE REPORT ONLY

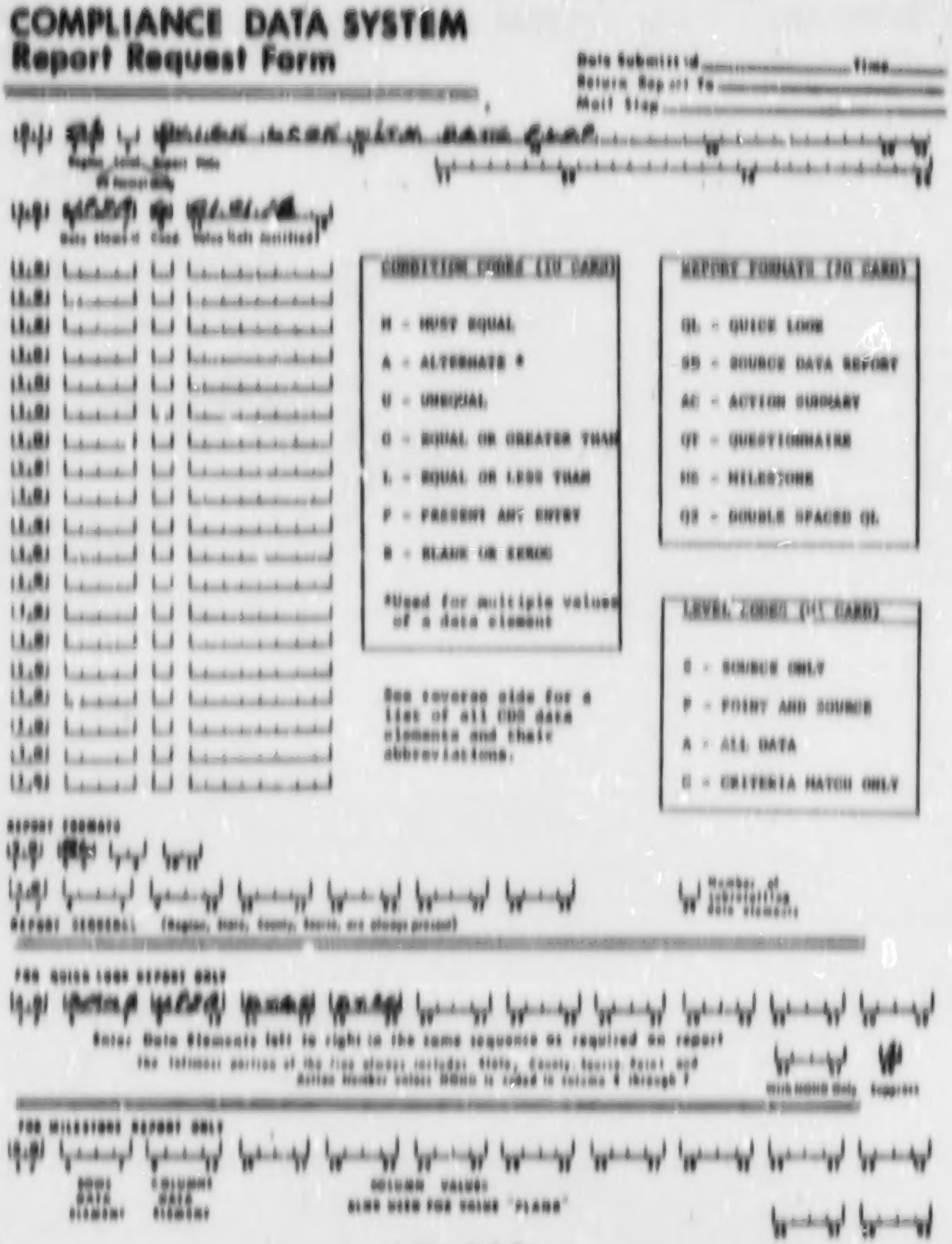
ROWS DATA ELEMENT

COLUMNS DATA ELEMENT

COLUMN VALUES

SIGN USED FOR VALUE "BLANK"

FIGURE 9-8



COMPLIANCE DATA SYSTEM
Report Request Form

Date Submitted ________ Time ________
Return Report To ________
Mail Stop ________

Data Element Cond. Value (Left Justified)

CONDITION CODES (1V CARD)

- M - MUST EQUAL
- A - ALTERNATE *
- U - UNEQUAL
- G - EQUAL OR GREATER THAN
- L - EQUAL OR LESS THAN
- P - PRESENT ANY ENTRY
- B - BLANK OR ZERO

*Used for multiple values of a data element

REPORT FORMATS ([illegible] CARD)

- QL - QUICK LOOK
- SD - SOURCE DATA REPORT
- AC - ACTION SUMMARY
- QT - QUESTIONNAIRE
- MS - MILESTONE
- QD - DOUBLE SPACED QL

LEVEL CODES ([illegible] CARD)

- S - SOURCE ONLY
- P - POINT AND SOURCE
- A - ALL DATA
- C - CRITERIA MATCH ONLY

See reverse side for a list of all CDS data elements and their abbreviations.

REPORT FORMATS

Number of Subtotalling Data Elements

REPORT SEQUENCE (Region, State, County, Source, are always printed)

FOR QUICK LOOK REPORT ONLY

Enter Data Elements left to right in the same sequence as required on report
The leftmost portion of the line always includes State, County, Source, Point and Action Number unless [illegible] is used in column 6 through 7

[illegible] Only Suppress

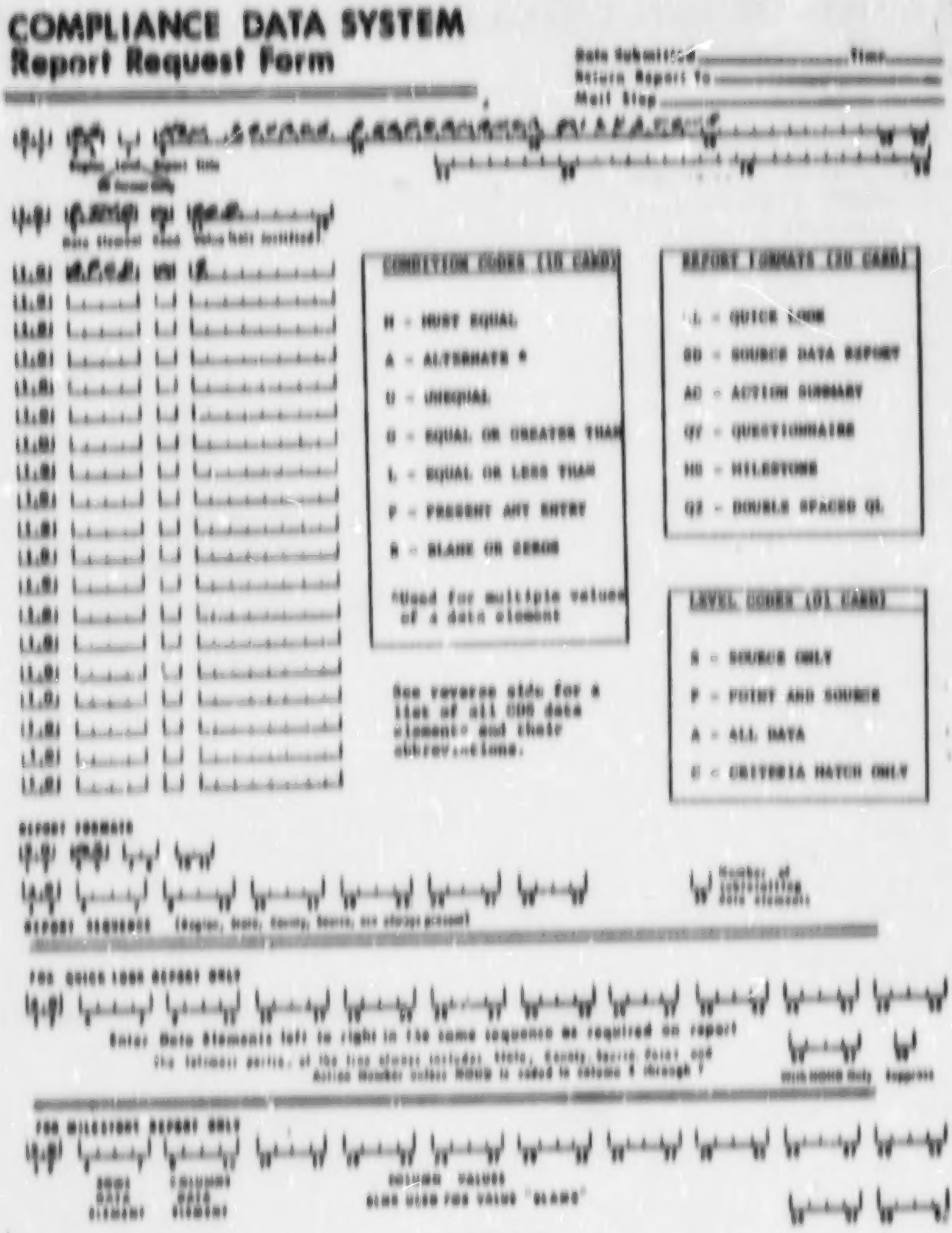
FOR MILESTONE REPORT ONLY

ROWS DATA ELEMENT

COLUMNS DATA ELEMENT

COLUMN VALUES: ALSO USED FOR VALUE "FLAGS"

Figure 9-8A



COMPLIANCE DATA SYSTEM
Report Request Form

Date Submitted ______________ Time ______
Return Report To ______________
Mail Stop ______________

CONDITION CODES (1C CARD)

- M - MUST EQUAL
- A - ALTERNATE *
- U - UNEQUAL
- G - EQUAL OR GREATER THAN
- L - EQUAL OR LESS THAN
- P - PRESENT ANY ENTRY
- B - BLANK OR ZEROS

*Used for multiple values of a data element

REPORT FORMATS (2C CARD)

- QL - QUICK LOOK
- SD - SOURCE DATA REPORT
- AC - ACTION SUMMARY
- QT - QUESTIONNAIRE
- MS - MILESTONE
- Q2 - DOUBLE SPACED QL

LEVEL CODES (01 CARD)

- S - SOURCE ONLY
- P - POINT AND SOURCE
- A - ALL DATA
- C - CRITERIA MATCH ONLY

See reverse side for a list of all CDS data elements and their abbreviations.

REPORT FORMATS

Number of subtotalling data elements

REPORT SEQUENCE (Region, State, County, Source, are always printed)

FOR QUICK LOOK REPORT ONLY

Enter Data Elements left to right in the same sequence as required on report

The leftmost portion of the line always includes: State, County, Source, Point and Action Number unless [illegible] is coded in column 6 through 7

Suppress

FOR MILESTONE REPORT ONLY

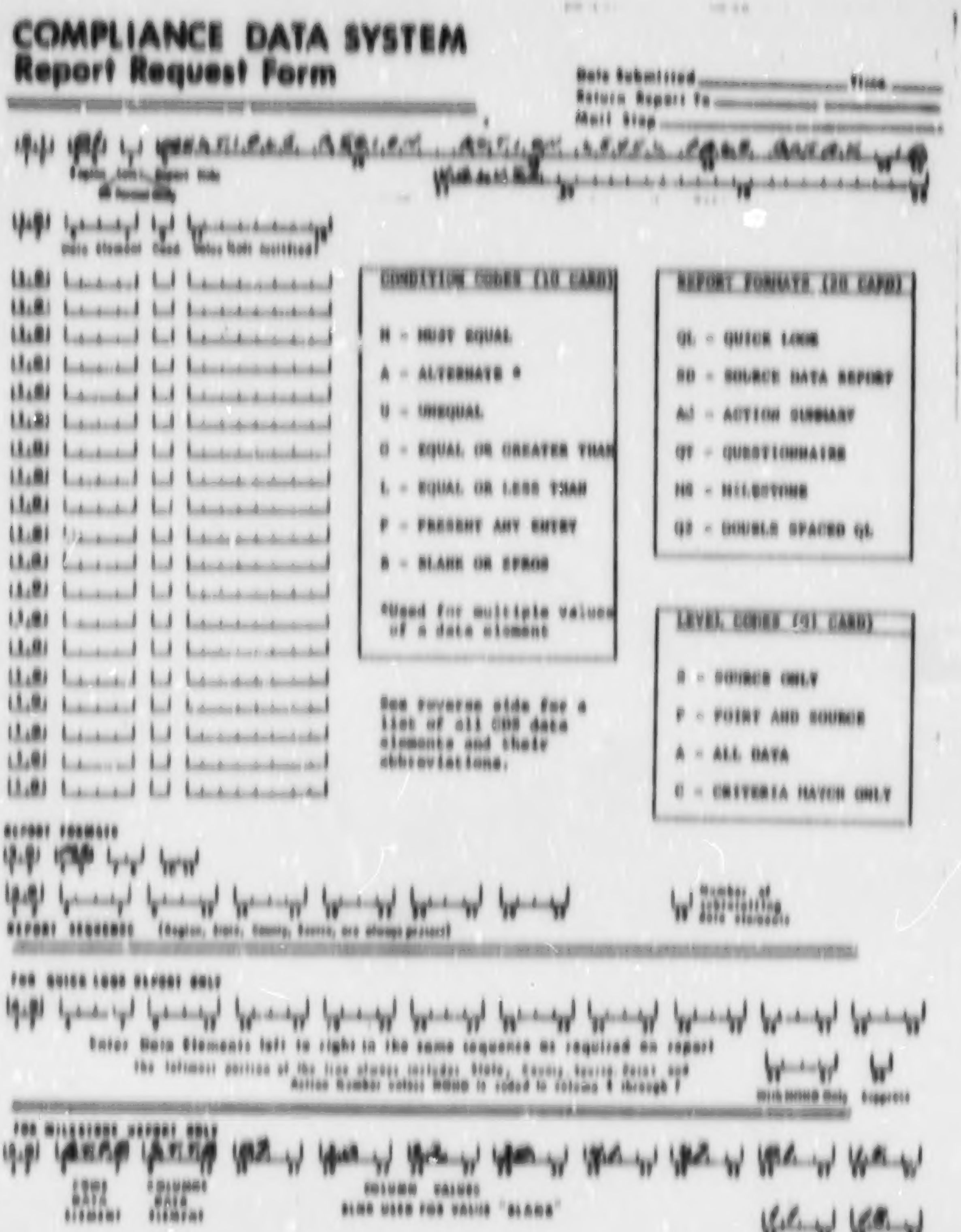
ROW DATA ELEMENT

COLUMN DATA ELEMENT

COLUMN VALUES

FIGURE 5-5

5-34



COMPLIANCE DATA SYSTEM
Report Request Form

Date Submitted ____________ Time ______
Return Report To ____________
Mail Stop ____________

[illegible]

Region Unit Report Title
HQ Personnel Only

Data Element Cond Value Data Qualified

CONDITION CODES (10 CARD)

M - MUST EQUAL
A - ALTERNATE *
U - UNEQUAL
G - EQUAL OR GREATER THAN
L - EQUAL OR LESS THAN
P - PRESENT ANY ENTRY
B - BLANK OR ZEROS

*Used for multiple values of a data element

See reverse side for a list of all CDS data elements and their abbreviations.

REPORT FORMATS (20 CARD)

QL - QUICK LOOK
SD - SOURCE DATA REPORT
AS - ACTION SUMMARY
QT - QUESTIONNAIRE
MS - MILESTONE
Q2 - DOUBLE SPACED QL

LEVEL CODES (31 CARD)

S - SOURCE ONLY
P - POINT AND SOURCE
A - ALL DATA
C - CRITERIA MATCH ONLY

REPORT FORMATS

Number of subtotalling data elements

REPORT SEQUENCE (Region, State, County, Source, are always primary)

FOR QUICK LOOK REPORT ONLY

Enter Data Elements left to right in the same sequence as required on report

The leftmost portion of the line always includes: State, County, Source Point and Action Number unless NOHD is coded in column 6 through 7

With NOHD Only Suppress

FOR MILESTONE REPORT ONLY

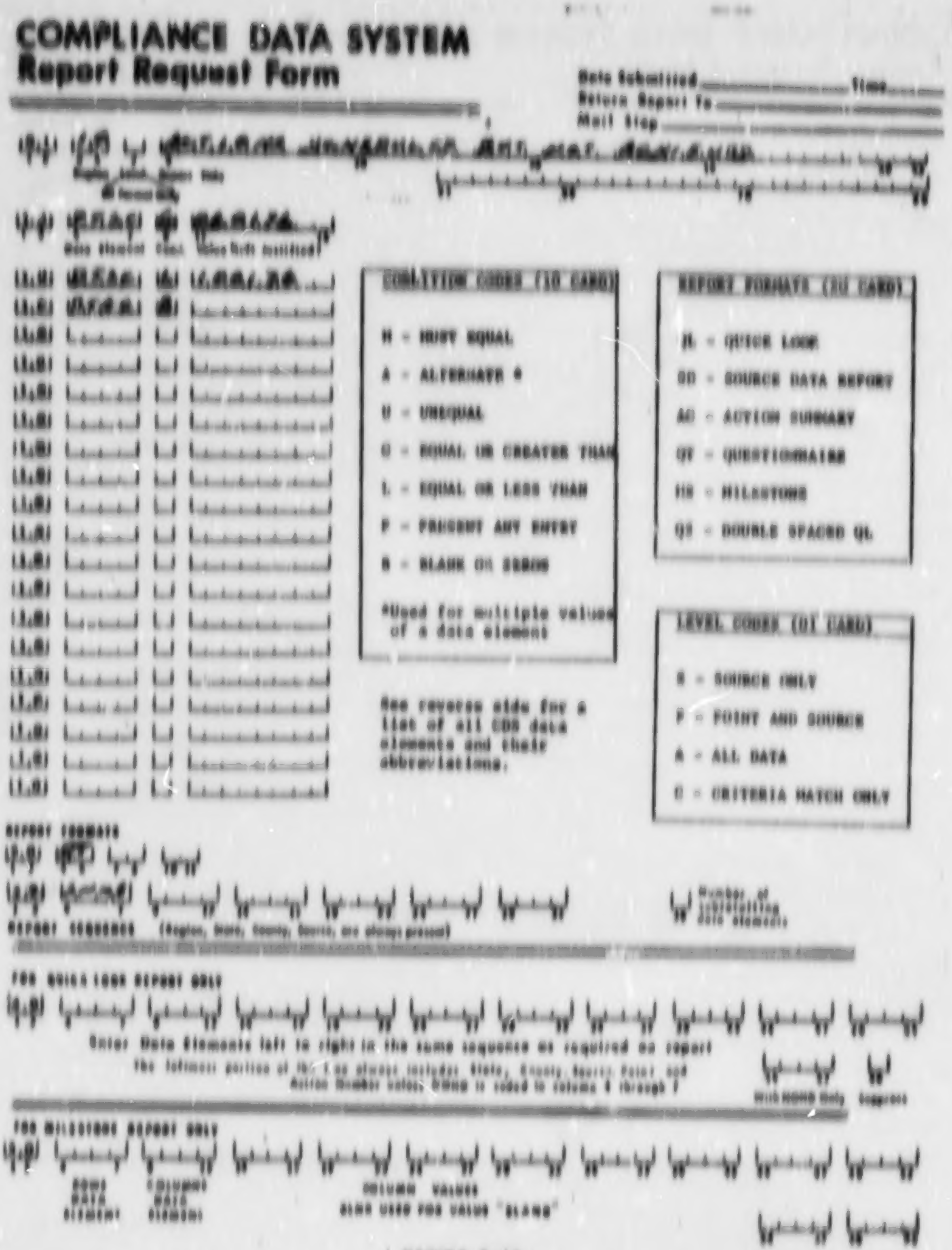
ROWS DATA ELEMENT

COLUMNS DATA ELEMENT

COLUMN VALUES

[illegible] "BLANK"

Figure 9-9A



COMPLIANCE DATA SYSTEM
Report Request Form

Date Submitted ____________ Time ______
Return Report To ____________
Mail Stop ____________

Data Element   Cond.   Value/Left Justified

CONDITION CODES (10 CARD)

M - MUST EQUAL
A - ALTERNATE *
U - UNEQUAL
G - EQUAL OR GREATER THAN
L - EQUAL OR LESS THAN
P - PRESENT ANY ENTRY
B - BLANK OR ZEROS

*Used for multiple values of a data element

See reverse side for a list of all CDS data elements and their abbreviations.

REPORT FORMATS (2U CARD)

QL - QUICK LOOK
SD - SOURCE DATA REPORT
AC - ACTION SUMMARY
QT - QUESTIONNAIRE
MS - MILESTONE
QS - DOUBLE SPACED QL

LEVEL CODES (01 CARD)

S - SOURCE ONLY
P - POINT AND SOURCE
A - ALL DATA
C - CRITERIA MATCH ONLY

REPORT FORMATS

Number of subtotalling data elements

REPORT SEQUENCE (Region, State, County, Source, are always present)

FOR QUICK LOOK REPORT ONLY

Enter Data Elements left to right in the same sequence as required on report
The leftmost portion of the line always includes: State, County, Source Point and Action Number unless [illegible] is coded in columns 6 through 7

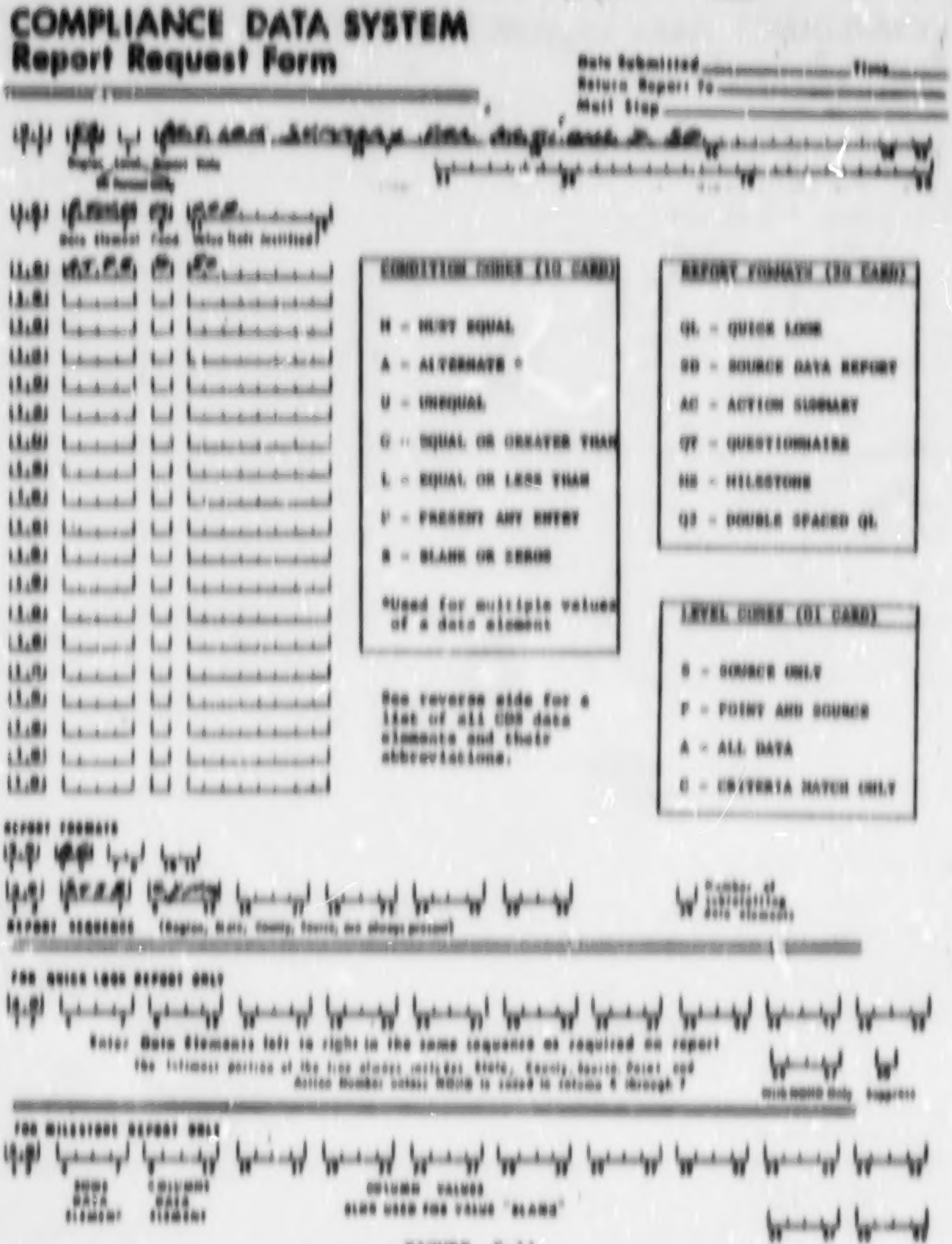
With [illegible] Only   Suppress

FOR MILESTONE REPORT ONLY

ROWS DATA ELEMENT   COLUMN DATA ELEMENT

COLUMN VALUES
[illegible] USED FOR VALUE "BLANK"

FIGURE 9-10



COMPLIANCE DATA SYSTEM
Report Request Form

Date Submitted ____ Time ____
Return Report To ____
Mail Stop ____

[illegible]

Data Element Code Value (left justified)

CONDITION CODES (10 CARD)

M - MUST EQUAL
A - ALTERNATE *
U - UNEQUAL
G - EQUAL OR GREATER THAN
L - EQUAL OR LESS THAN
P - PRESENT ANY ENTRY
B - BLANK OR ZERO

*Used for multiple values of a data element

REPORT FORMATS (20 CARD)

QL - QUICK LOOK
SD - SOURCE DATA REPORT
AC - ACTION SUMMARY
QT - QUESTIONNAIRE
MS - MILESTONE
Q2 - DOUBLE SPACED QL

See reverse side for a list of all CDS data elements and their abbreviations.

LEVEL CODES (01 CARD)

S - SOURCE ONLY
P - POINT AND SOURCE
A - ALL DATA
C - CRITERIA MATCH ONLY

REPORT FORMATS

Number of subtotalling data elements

REPORT SEQUENCE (Region, State, County, Source, are always grouped)

FOR QUICK LOOK REPORT ONLY

Enter Data Elements left to right in the same sequence as required on report
The leftmost portion of the line always includes State, County, Source Point and Action Number unless NONE is coded in columns 6 through 7

With NONE Only Suppress

FOR MILESTONE REPORT ONLY

ROWS DATA ELEMENT
COLUMNS DATA ELEMENT
COLUMN VALUES
BLNK USED FOR VALUE "BLANK"

FIGURE 9-11

9.4 Job Control Language for Using Retrieval Program

The CDS Retrieval Package operates on a Remote Job Entry (RJE) basis at COMNET. Input must be submitted from a high speed terminal (frequent and complicated requests might be stored on an ALPHA data set). To submit a job request, only two JCL cards are needed in addition to the COMNET job cards and the necessary, 01, 10, 20, 30, and 40 cards. No action is required to receive the output printout as it will be routed back to the original terminal as soon as it is presented. (See COMNET Users Manual for additional routing information.)

To execute the Retrieval Program, use the JCL as shown in Figure 9-12. In addition to the two JCL cards shown, use a Job Card which allows for a sufficient amount of time and print lines. One minute and 10,000 lines should be adequate for most Quick Look Reports. Requests for multiple reports and Source Data Reports are likely to need more time and more lines. Refer to the COMNET User's Manual for detailed information about the Job Card.

9.5 Retrieval Edits Performed by System

The Retrieval Program edits the request cards, 01, 10, 20, 30, and 40, to determine if they are convertible into logic which the system can process. Errors on the request card will appear as Error Messages on the Edit Report. These Error Messages are classified as "WARNING" or "FATAL."

Table 9-1 lists the type of edits performed, the correct possibilities, and the action taken by the system if an error is detected.

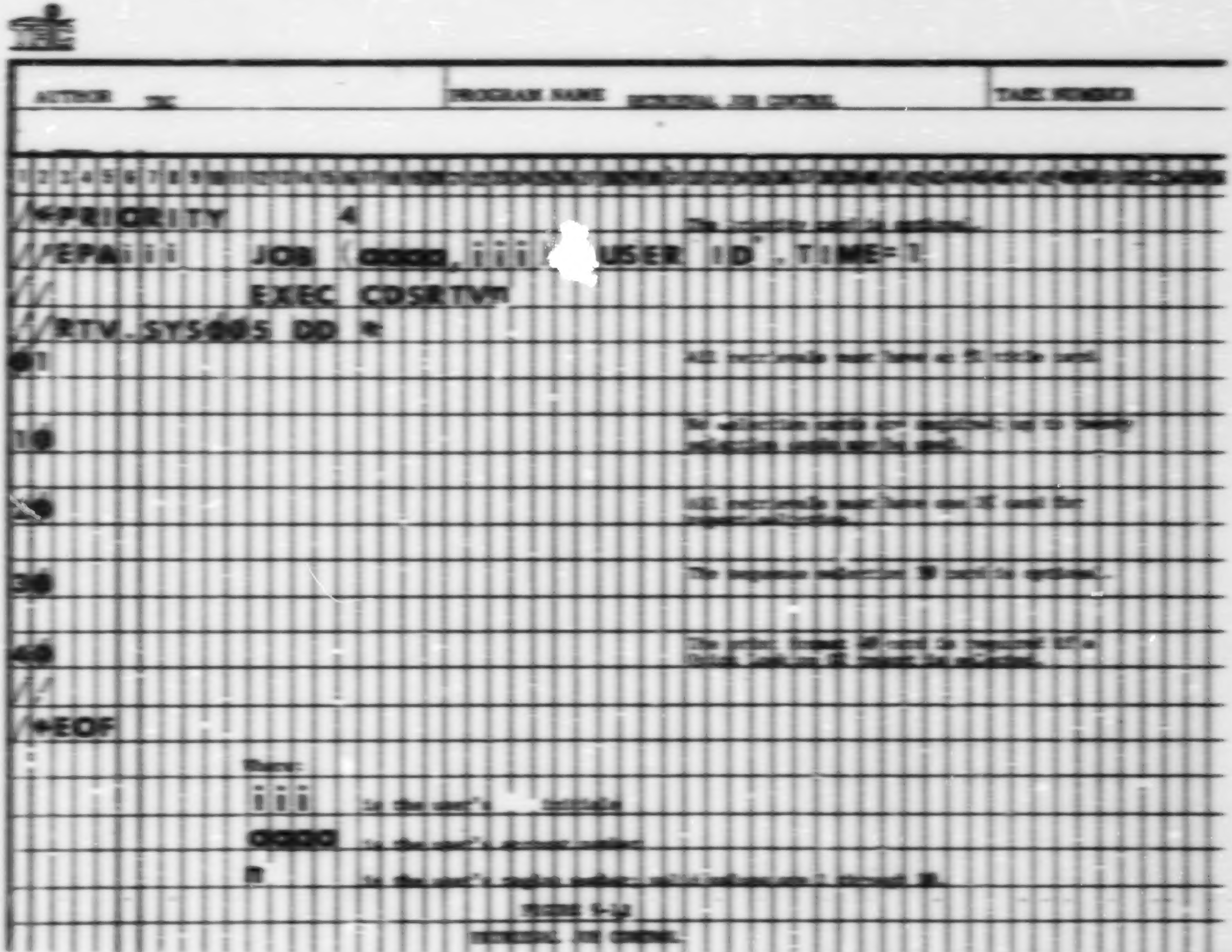


TABLE 9-1

RETRIEVAL PACKAGE EDITS

Card Type	Item Checked	Correct Possibilities	Action if in Error
01	Level	Blank, S,F,A,C	If SD format requested, it is ignored if blank or other
	Region Number	Required for Standard Milestone	Fatal - Processing stops after EDIT
	Number of 01 Cards	One or none	Only first 01 card accepted
10	Data Element	Listed on Input Form	FATAL - Processing stops after EDIT
	Condition	N,A,U,G,L,P,B	FATAL - Processing stops after EDIT
	Value	(1) Anything (2) Numeric for "numeric" items, i.e., REGN, STTE, CNTY, SRCE, FTMP, ATPS, DTSC, DTAC, STAC (3) Number of Digits less than or equal to number of digits on Input form	(1) Ignored if not blank for condition P or B (2) FATAL - Processing stops after EDIT (3) Fatal if the wrong length is used
	Number of 10 Cards	0 - 20	FATAL - Processing stops after EDIT
20	REPORT FORMAT	(1) QL, SD, AC, OT, OR, MS Up to three reports are available from one retrieval	(1) Processing will continue if at least one valid FORMAT
	(LEVEL ON 01 CARD)	(2) If SD requested, LEVEL on 01 card required	(2) SD FORMAT request ignored
	Number of 20 Cards	1	FATAL - Processing stops after EDIT
30	REPORT SEQUENCE	List on Input Form	FATAL - Processing stops after EDIT
	DATA ELEMENT SEQUENCE LENGTH	Total 48	FATAL - Processing stops after EDIT
40	QUICK LOOK DATA ELEMENT	List on Input Form	QL Format Request ignored
	QL Length	Total length (including one blank between each item) 132 with NUMB, 110 without NUMB	QL Format Request ignored
	Number of 40 Cards	(1) 1 if QL FORMAT requested (2) 0 if no QL FORMAT	(1) QL FORMAT Request ignored (2) QL FORMAT Assumed (if only one 40 card)
50	VARIABLE MILESTONE DATA ELEMENT	List on Input Form (BLE), BLE 2 EXCLUDED)	FATAL - Processing stops after EDIT
	Column Values	must be present	FATAL - Processing stops after EDIT
	Relation to other cards	(1) MS not requested on 20	FATAL - Processing stops after EDIT
	Number of 50 Cards	One or none	MS FORMAT Request ignored
ALL	General CARD TYPE	01, 10, 20, 30, 40, 50	FATAL - Processing stops after editing

Table 9-2 contains a list of all possible Error Messages and the errors which are the cause of their appearance on the Edit Report. Figure 9-13 shows a typical Retrieval Edit Report.

TABLE 9-7

RETRIEVAL PACKAGE ERROR MESSAGES

ERROR MESSAGE	CAUSE
"FATAL - INVALID RETRIEVAL CARD"	Card type not 01, 10, 20, 30, or 40
"WARNING - DUPLICATE TITLE (01) CARD"	More than one 01 card type entered, the first one is accepted.
"FATAL - OVER 20 SELECTION CRITERIA"	Limit of twenty card type 20 cards exceeded.
"FATAL - INVALID DATA ELEMENT"	4-digit data element abbreviation does not correspond to any on list on input form. This error can occur on card types 10, 30, or 40.
"WARNING - BAD LEVEL, SD FORMAT DELETED"	The level code entered on card type 01 is not S, F, A, or C. If SD format is requested, it will be ignored.
"FATAL - INVALID CONDITION"	The condition code entered on card type 10 was not E, A, U, O, L, P, or B.
"WARNING - VALUE NOT USED FOR COND P OR B"	An entry was made in the VALUE portion of card type 10 with a CONDITION of P or B. These conditions do not utilize any VALUE.
"FATAL - THIS VALUE MUST BE NUMERIC"	An alphabetic digit (other than 0-9) was entered in the VALUE portion of card type 10 for a data element which must be numeric, e.g., the value for DTSC must be a date consisting of 6 digits (0-9).
"WARNING - VALUE TOO LONG (TRUNCATED)"	The number of digits entered in the VALUE portion of card type 10 was larger than the number of digits specified for that data element on the list on the input form.
"WARNING - INVALID REPORT FORMAT WILL CONTINUE IF ANY VALID FORMATS"	A code other than QL, SD, AC, or QT was entered on card type 20
"WARNING - QL FORMAT ASSUMED:	A card type 40 was entered, but QL was not requested on card type 20. QL will be assumed as entered.

TABLE 9-2 (Continued)

RETRIEVAL PACKAGE ERROR MESSAGES

ERROR MESSAGE	CAUSE
"FATAL - REPORT FORMAT (2D) CARD REQUIRED"	No card type 2D was entered. This card type is required.
"WARNING - QL (4D) MISSING, QL DELETED"	No card type 4D was entered, although QL was entered on card type 2D. QL report format is ignored.
"WARNING - QL TOO BIG, QL DELETED"	The total length of the QL line is greater than 110 digits with the default header information or it is greater than 132 digits with NOHD.
"WARNING - SD TYPE DELETED, LEVEL MISSING"	A level code of S, P, A, or E was not entered on card type 01. This code is required for the SD report format.
"WARNING - LEVEL FOR SD FORMAT ONLY"	A level code was entered on card type 01, but SD report format was not requested. The level code is for SD reports only.
"FATAL-DUPLICATE FORMAT (2D) CARD"	More than one card type 2D was entered.
"FATAL - DUPLICATE SEQUENCE (3D) CARD"	More than one card type 3D was entered.
"FATAL - SEQUENCE KEY TOO LONG"	The sum of the number of digits of the data elements requested for the user sequence (card type 3D) was greater than 40. (36 for AC, 39 for QL)
"FATAL - INVALID MS DATA ELEMENT COMBO"	Only source level data elements may be requested on a Milestone together with repeating pollutant data on a 5D Card.
"FATAL - REPEAT AND POINT OR ACTION ON QL"	The Card 4D may specify only source level data together with repeating pollutant data on the Quick look.

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```
                                RETRIEVAL EDIT REPORT
   09/25/79                    COMPLIANCE DATA SYSTEM                                  PAGE 001

RETRIEVAL ID     LEVEL         TITLE  NEW SOURCE PERFORMANCE MILESTONE

SELECTION CRITERIA
      DATA ELEMENT                    CONDITION            VALUE                              ERRORS
   OPERATION POINT NUMBER           MUST EQUAL           [illegible]
   AIR CODE                         MUST EQUAL           [illegible]

REPORT SEQUENCE                 REPORT FORMAT NO
   *STATE
   *COUNTY
   *SOURCE NUMBER
   *EMISSION POINT NUMBER
   *ACTION NUMBER

SELECTIVE "CRSTAB"    ROWS DATA ELEMENT IS CHST        COLUMNS DATA ELEMENT IS SITE
NO ERRORS DETECTED - CONTINUING WITH RETRIEVAL
```

EXHIBIT 9-13

RETRIEVAL EDIT REPORT

10.0 SUPPORTIVE TECHNICAL INFORMATION

10.1 Table Processing

All of the programs in CDS perform a number of table-lookups in order to validate an input data value and/or to generate a description which corresponds to the input code. There are four data elements which have separate table-lookup procedures for each of the ten EPA Regions using CDS. Each of the 10 regions may specify the description for the following codes: County Code, Personnel Code, Action Type, and Results Code.

10.1.1 County Code Table

In the Edit, the State and County Codes on every card are validated by the Region's County Code Table. An input transaction is rejected with a fatal error if the State and County Codes on the input do not match one of the entries on this table.

For each valid Card 1 entered with an Update Code "N", the county name associated with the County Code is generated and passed to the Update. The Update places the County Name on the Masterfile as a retrievable data element.

For a Card 1, the Air Quality Control Region (AQCR) on the input transaction is validated against the AQCR on the County Code Table.

Entries on the County Code Table have the following punchcard layout:

Card Columns	Length	Data Element	Data Type
1-2	2	Region Code	Numeric, 01-10
3-4	2	State Code	Numeric, 01-55
5-8	4	County Code	Numeric
9-25	17	County Name	Alphanumeric
26-28	3	First AQCR	Numeric
29-31	3	Second AQCR	Numeric
32-34	3	Third AQCR	Numeric
35-80	46	Filler	Must be blank

The County Codes and the County Names have been developed from the SAROAD Coding Manual. Users may wish to add additional county codes, especially for special facilities such as portable asphalt batching plants which are not always located in the same county. To change the County Code Table, users should provide the national Data Bank Coordinator with the necessary information to add, change, or delete an entry on this table.

Figure 10-1 is the County Code Table for a region. Users should document any table changes on this figure.

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Region I

County name

```
01070255FAIRFIELD          042042042
01070425HARTFORD           042042
01070475LITCHFIELD         042042
01070565MIDDLESEX          042041
01070705NEW HAVEN          042
01070725NEW LONDON         041
01071155TOLLAND            042041
01071305WINDHAM            041
01200027ANDROSCOGGIN       107
01200045AROOSTOOK          108111
01200277CUMBERLAND         110
01200445FRANKLIN           111107
01200495HANCOCK            109
01200547KENNEBEC           107
01200595KNOX               107
01200645LINCOLN            107
01200685OXFORD             110107111
01200707PENOBSCOT          109111
01200795PISCATAQUIS        109111
01201065SAGADAHOC          110
01201125SOMERSET           111107
01201165WALDO              107
01201205WASHINGTON         109
01201325YORK               110
01220187BERKSHIRE          117
01220369CENTRAL MASS       118
01221274MERRIMACK VALLEY   121
01222291METRO BOSTON       119
01223779PIONEER VALLEY     042
01224121SOUTH EAST MASS    120
01300020BELKNAP            121
01300040CARROLL            149
01300080CHESHIRE           121
01300140COOS               107
01300240GRAFTON            149
01300300HILLSBOROUGH       121
01300440MERRIMACK          121
01300580ROCKINGHAM         121
01300640STRAFFORD          121
01300660SULLIVAN           121
01410060BRISTOL            120
01410140KENT               120
01410200NEWPORT            120
01410320PROVIDENCE         120
01410360WASHINGTON         120
01470020ADDISON            159
01470100BENNINGTON         221
01470160CALEDONIA          221
01470180CHITTENDEN         159
01470200ESSEX              221
01470240FRANKLIN           159
01470260GRAND ISLE         159
01470280LAMOILLE           221
01470360ORANGE             221
01470380ORLEANS            221
01470420RUTLAND            159
01470500WASHINGTON         221
01470560WINDHAM            221
01470620WINDSOR            221
```

FIGURE 10-1

COUNTY CODE TABLE

10-1

10.1.2 Personnel Code Table

In the Edit, the Personnel Code found on the Card 2 in columns 77-79 and on the Card 7 in columns 67-79 are validated by the Region's Personnel Code Table. Input values which do not match one of the table values cannot be passed to the Masterfile and are blanked out.

In the Update, the Personnel Code Table lookup is performed for every source and action record on the input Masterfile and on the input transaction file. A personnel name and a personnel title are generated for the output Masterfile based on each personnel code.

Entries on the Personnel Code Table have the following punchcard layout:

Card Columns	Length	Data Element	Data Type
1-2	2	Record-Identifier	Always "BB"
3-4	2	Region	Numeric, 01-10
5-7	3	Personnel Code	The first position may be alphabetic; the second and third must be numeric.
8	1	Filler	Always "0"
9-23	15	Personnel Name	Alphanumeric
24-38	15	Personnel Title	Alphanumeric
39-80	42	Filler	Must be blank

By changing the Personnel Name for a given Personnel Code on this table, all occurrences of the old Personnel Name on the Masterfile will be replaced with the new Personnel Name.

To change the Personnel Code Table, users should provide the national Data Bank Coordinator with the necessary information to add, change, or delete an entry on this table.

Figure 10-2 is the Personnel Code Table for a Region. Users should document any table changes on this figure.

```
03P01PRKOB
02004M KANTZ        ENGINEER
03007G MARCIANTE    ENGINEER
02019N TRICHON      ENGINEER
02021R CELLAMARU    ENGINEER
02038V CITRUZZELLO  ENGINEER
02053PIKCI          ENGINEER
02068D STONE        ENGINEER
02101A SALPETER     ENGINEER
02102P KAHN         ENGINEER
02903B TURNICK      ENGINEER
02904R ODD          ENGINEER
02905D SANTELLA     ENGINEER
02999K END          ENGINEER
```

FIGURE 10-3

SAMPLE PERSONNEL TABLE

10.1.3 Action Table

In the Edit, the Action Type found on the Card 7 in columns 53-54 is validated by the Action Table. Input values which do not match one of the table values will cause the input transaction to be rejected with a fatal error.

In the Update, the Action Table lookup is performed for every new Card 7 transaction and for every Card 7 which changes the Action Type. Both a long and a short Action Description are generated on the Master-file based on the Action Type.

Entries on the Action Table have the following punchcard layout:

Card Columns	Length	Data Element	Data Type
1-2	2	Record-Identifier	Always "CC"
3-4	2	Region	Numeric, 01-10
5-6	2	Action Type	Numeric
7-8	2	Filler	Always "00"
9-23	15	Short Action Description	Alphanumeric
24-73	50	Long Action Description	Alphanumeric
74-80	7	Filler	Must be blank

To change the Action Table, users should provide the national Data Bank Coordinator with the necessary information to add, change, or delete an entry on this table.

Figure 10-3 is the Action Table for a Region. It was obtained from COMNET under the name CH.EPAFCS.ADZG.SSAM.TABLE. Users should document any table changes on this figure.

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```
060100[illegible]FINAL CONTROL PLSUBMISSION OF FINAL CONTROL PLAN
      RECORD 00460
060100[illegible]PURCHASE EQUIP BINDING COMMITMENT TO PURCHASE CONTROL EQUIPMENT
      RECORD 00461
060100[illegible]START CONST    INITIATION OF ON SITE CONSTRUCTION/PROCESS CHANGE
      RECORD 00462
060100[illegible]END CONSTR     COMPLETION OF ON SITE CONSTRUCTION/PROCESS CHANGE
      RECORD 00463
060100[illegible]FINAL COMPL    FINAL COMPLIANCE
      RECORD 00464
060100[illegible]COMPLAINT RECVDCOMPLAINT RECEIVED
      RECORD 00465
060100[illegible]STATE INSPECTIONSTATE INSPECTION
      RECORD 00466
060100[illegible]VIOLAT OBSERVEDVIOLATION OBSERVED
      RECORD 00467
060100[illegible]ST SOURCE TEST STATE SOURCE TEST
      RECORD 00468
060100[illegible]AMB AIR TEST   AMBIENT AIR TEST
      RECORD 00469
060100[illegible]ADMINIS HEARINGADMINISTRATIVE HEARING
      RECORD 00470
060100[illegible]ST ENFORC ACT  STATE ENFORCEMENT ACTION
      RECORD 00471
060100[illegible]ST LEGAL ACTIONSTATE LEGAL ACTION
      RECORD 00472
060100[illegible]PLAN REVIEW    PLAN REVIEW



  IERIRAP   EPA01A TABLE                                        05/26/76
      RECORD 00473
060100[illegible]REGISTRATION   REGISTRATION
      RECORD 00474
060100[illegible]ABATE PROG REPTABATEMENT PROGRESS REPORT
      RECORD 00475
060100[illegible]OTHER ACTION   OTHER ACTION(SEE COMMENTS BELOW)
      RECORD 00476
060100[illegible]STATE NOV      STATE NOV
      RECORD 00477
060100[illegible]114 LETTER SENT114 LETTER SENT
      RECORD 00478
060100[illegible]EPA INSPECTION EPA INSPECTION
      RECORD 00479
060100[illegible]EPA SOURCE TESTEPA SOURCE TEST
      RECORD 00480
060100[illegible]VISIB EMIS EVALVISIBLE EMISSIONS EVALUATION
      RECORD 00481
060100[illegible]NTC OF VIOLATNOTICE OF VIOLATION
      RECORD 00482
060100[illegible]ABATE ORDER ISSABATEMENT ORDER ISSUED
      RECORD 00483
060100[illegible]CIV/CRIM ACTIONCIVIL/CRIMINAL ACTION
      RECORD 00484
060100[illegible]REVIEW SOURC SUREVIEW SOURCE SUBMISSION
      RECORD 00485
060100[illegible]CONF W/ OPERAT CONFERENCE WITH OPERATOR
      RECORD 00486
060100[illegible]VERIFY SOURC ACVERIFY SOURCE ACTION
      RECORD 00487
060100[illegible]REPORT TO EPA  REPORT TO EPA
      RECORD 00488
060100[illegible]ABATE PROG REPTABATEMENT PROGRESS REPORT TO EPA
      RECORD 00489
060100[illegible]CASE CLOSED    CASE CLOSED
```

FIGURE 10-3
SAMPLE ACTION TABLE

10.1.4 Results Code Table

In the Edit, the Results Code found on the Card 7 in columns 70-71 is validated by the Results Code Table. If the input transaction entry is valid, a Results Description is generated and passed to the Update, where it is placed on the Masterfile. If the input transaction is not on the Results Code Table, no Results Code is passed to the Update.

Entries on the Results Code Table have the following punchcard layout:

Card Columns	Length	Data Element	Data Type
1-2	2	Record-Identifier	Always "DD"
3-4	2	Region	Numeric, 01-10
5-6	2	Results Code	Numeric
7-8	2	Filler	Always "00"
9-23	15	Results Description	Alphanumeric
24-80	57	Filler	Must be blanks

To change the Results Code Table, users should provide the national Data Bank Coordinator with the necessary information to add, change, or delete an entry on this table.

Figure 10-4 is the Results Code Table for a Region. Users should document any table changes on this figure.

```
     RECORD 00889
 060100 ACTION ACHIEVED
     RECORD 00890
 060100 NOT ACHIEVED
     RECORD 00891
 060100 ACTION RESCHED
```

FIGURE 10-4

SAMPLE RESULTS CODE TABLE

10.1.5 Other Table Lookup Procedures

For both editing and report formatting purposes, there are a large number of table lookups for values which are used consistently by all regions. For example, there are nine possible values for Compliance Status Code. Each value has a corresponding definition which appears on the Source Data Report. These definitions must be used by all users and can be changed only by the national Data Bank Coordinator.

The following data elements have table lookups for converting a code to an English-language description:

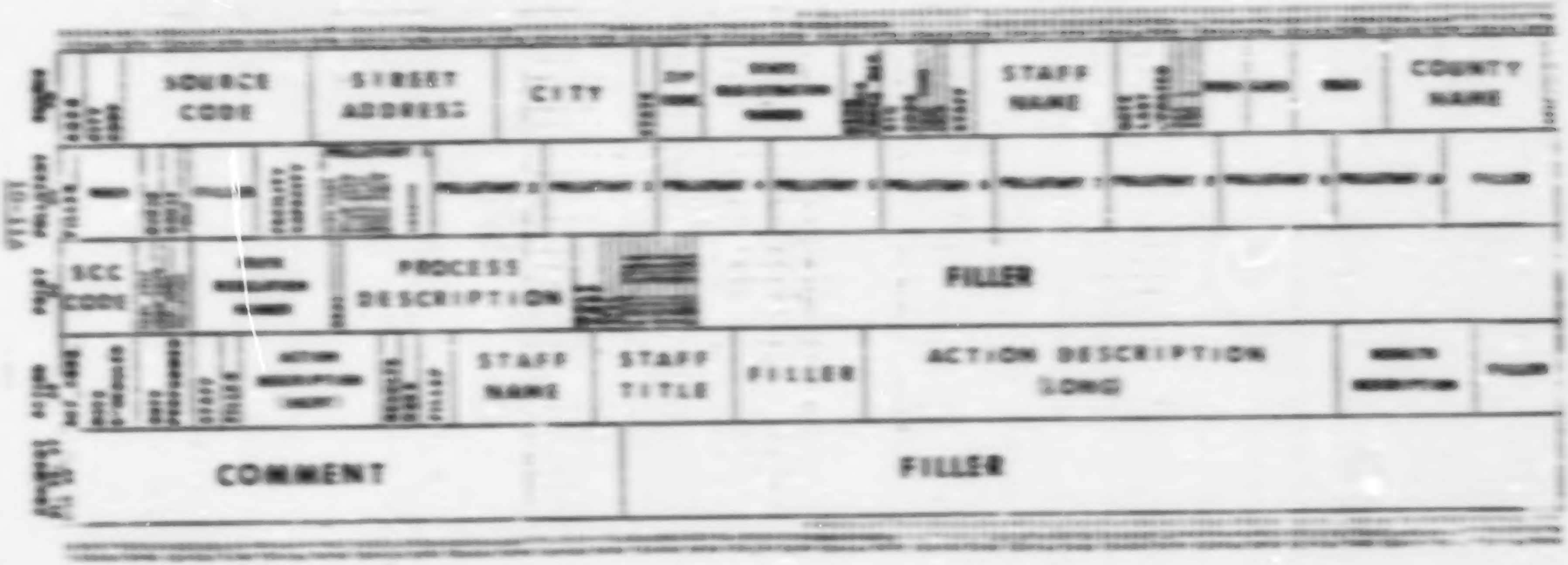
Region
State
Federal Facility Code
Active/Passive Code
Emission Category
Compliance Status
SIP Code
Pollutant Code

Any additional values to these codes or changes in the definitions of these codes must be approved by the national Data Bank Coordinator. Each change involves a number of computer program modifications.

10.1.6 CDS Masterfile Layout

Figure 10-3 shows the format of the CDS Masterfile. This file is resident on tape and is used in each of the Update cycles. This format is also used for each of the disk masterfiles from which retrievals are performed.

COMPLIANCE DATA SYSTEM
MASTER FILE LAYOUT



SOURCE CODE
STREET ADDRESS
CITY
STAFF NAME
COUNTY NAME
SCC CODE
PROCESS DESCRIPTION
FILLER
STAFF NAME
STAFF TITLE
FILLER
ACTION DESCRIPTION LONG
COMMENT
FILLER

FIGURE 10-5

10.2 Backup and Recovery Procedures

Both the user and the national Data Bank Coordinator have responsibilities to make sure that CDB can survive hardware malfunctions as well as occasional human error in the course of system usage.

10.2.1 User Responsibility for Backup

As part of the normal operation of CDB, users should perform the following tasks to assure proper backup:

- o All input punchcards must be kept for a minimum of one month from the date on which they were used as input to CDB. Card batches should be labelled by date so that they can be identified and used as backup.
- o ALPHA data sets which are used as input transactions must be kept for a minimum of one month from the date on which they were used as input to CDB. Users should keep a log of all ALPHA data sets, marking the creation date, the expiration date, the approximate volume on the data set, and its use or function.
- o Edit Reports should not be discarded. The Edit Report provides a record of what transactions were input to the system. Corrections should be checked off as they are performed.
- o All Update Reports must be kept on file. Since the Update Reports provide the only audit trail of data placed on the CDB Masterfile, they are very valuable for researching problems. They should be filed in the order of the Masterfile's Output Serial Number which appears on the heading of each page. If users note any discrepancies or inexplicable errors on this report, this should alert the national Data Bank Coordinator or TAC. TAC maintains a complete inventory of all Update Reports for all users.

10.2.2 National Responsibility for Backup

As part of the normal operation of CDB, the national Data Bank Coordinator performs the following tasks to assure backup of the system:

- During the update cycle, the MOD File containing all transactions submitted since the previous update cycle is copied to a magnetic tape. Five cycles of tape are maintained so that backup exists for one month's worth of input transactions.
- Five cycles of the CDS Masterfile are kept at the central computer facility.
- On a quarterly basis, the CDS Masterfile is copied and sent to TRC for archiving.
- Since the ten regional disk Masterfiles are created each week from the CDS Masterfile, the Masterfile provides the only backup of regional files.
- The County Code, Personnel, Action, and Result Code Tables can be recreated from punchcards or from WYLBUR data sets.
- All other CDS data sets and computer programs are maintained at TRC with punchcard backup available at all times.

10.2.3 Recovery Procedures

If any backup procedures are needed to recover from hardware difficulties at the central computer site, the national Data Bank Coordinator will inform each user about the specific backup procedure to be used. In most recovery procedures involving user participation, users will be asked to resubmit input transactions which were destroyed during the hardware difficulties.

10.3 Computer Program Modifications

If any of the computer programs in the CDS system produce erroneous results, it is the user's responsibility to notify the national Data Bank Coordinator of the problem. In addition to describing the problem in detail, users may be asked to rerun the program in error so that the printout can be routed to TRC for a detailed analysis.

Computer program errors can usually be corrected within a short time. Minor problems and modifications can be made in less than one week. Major changes may take several weeks or months, depending on the complexity of the change.

11.0 NATIONAL GUIDANCE MATERIAL

All national guidance material should be filed in this section as it is made available from the Division of Stationary Source Enforcement.

Note:

The information on pages 11-2 thru 11-7, CDS Input Preparation via WYLBUR, no longer applies. Due to the lack of similar capabilities at COMNET, CDS input preparation via ALPHA cannot be implemented at this time. However, development of this capability is pending and it will be made available to the user when developed.

11.1 CDS Input Preparation via WYLBUR

WYLBUR is a powerful tool which can be used in conjunction with the CDS retrieval to create input punch card formats for the CDS Edit. WYLBUR should not be used to prepare new facilities or highly changeable data as input to CDS.

When a uniform add, change, or delete must be made to one particular CDS punch card type, users should consider using WYLBUR rather than ordinary coding sheets. If the selection logic of the CDS retrieval can be used to extract those CDS masterfile records which must be changed, WYLBUR should be used to create the desired input.

Examples of successful WYLBUR applications are:

- o Create a new action record with the same action type and date scheduled for all NSPS facilities.
- o Generate a new action for all action which have been rescheduled within a certain time.
- o Delete all actions which have been scheduled and performed prior to January 1, 1974.
- o Change the Compliance Status for all sources which meet certain retrieval selection criteria.
- o Change a Regional Data Element for sources which meet certain retrieval selection criteria.
- o Change the AQCR for all facilities within certain counties.

The following steps outline how WYLBUR might be used to perform any of the above tasks:

A) Formulate the Retrieval Selection Cards which will create a Quick Look Report which can then be manipulated and converted into input punch card formats. The 40 Card used for print-line formatting should contain [illegible], REGN, STTE, CNTY, SRCE, and any other applicable data elements which will be needed for each input transaction.

B) Execute the retrieval by issuing the following command:
RUN HOLD UNNUMBERED
This command will enable the user to manipulate the output from the retrieval. Users must note the job number returned by WYLBUR.

C) Collect and save a data set which can be used as a Load & Go for this retrieval and other retrievals containing similar formats. The following WYLBUR commands should be used in this Load & Go:

Command	Purpose
1. PAUSE	Allows the user to fetch the retrieval output
2. SET TERSE	Shortens WYLBUR responses
3. DELETE NOT "0g" 1/2 IN ALL	Eliminates all heading and non-data lines in the Quick Look
4. SET LENGTH = 133	Eliminates unnecessary messages when using the CHANGE command.
5. CHANGE ' ' TO'' IN ALL NOLIST	Eliminates all spaces on the remaining Quick Look
6. CHANGE 80/80 to 'C' IN ALL NO LIST	Generates an Update Code in Column 80
7. SET LENGTH = 80	Creates an 80 column record.
8. LIST 1/13	Lists the first few data lines.
9. LIST L	Lists the last line.
10. SAVE CDS. INPUT ON TSO016	Saves the formated data set for backup.

The above WYLBUR commands will transform the print layout of the Quick Look report into card formats usable as input to CDS. All Region, State, County, Source, Point, and Action Numbers are guaranteed to match masterfile records.

D) Once the retrieval has been executed, use the saved Load & Go Data set as follows:

1.
   ```
   LOAD USER,LOAD ON TSC016 GO LIST
   ```

   The PAUSE command in the Load & Go will allow the user type in the following command:

   ```
   FETCH JOBNUMBER DDNAME=PRINTOUT
   ```

   As soon as this fetch command is issued, all the other commands in the Load & Go are executed.

2. User must now create the card type for all records with the following command:

   ```
   CHANGE 19/19 TO '7' IN ALL NOLIST
   ```

3. Replace with spaces any unnecessary data columns.

4. Add new data as appropriate. To add a Date Achieved, use the following command:

   ```
   CHANGE 55/60 TO '06076' IN ALL NOLIST
   ```

5. Insert or copy the appropriate EDIT JCL to the beginning of this data set.

6. Insert two slashes as the last record of this data set.

7. Execute the CDS Edit with the following command:

   ```
   RUN REMOTE 17 UNNUMBERED
   ```

   WYLBUR will return a job number for the Edit Program. Once the Edit has been executed, the Edit Report must be examined to make sure that all input has been prepared properly.

The following checklist gives some of the advantages and disadvantages of using WYLBUR for input data preparation:

Advantages	Disadvantages
Saves input data preparation coding time for uniform changes.	Input data must be retrievable from the CDS masterfile.
Provides "instant input" with no need to wait for keypunching.	WYLBUR sessions cost about $30/hour; this is much more than either coding or keypunching costs for variable data.
WYLBUR commands, especially the CHANGE command, are powerful tools for data manipulation.	Users must possess basic WYLBUR knowledge to perform needed data manipulation tasks.

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Figure 11-1
COLLECTING RETRIEVAL TEXT

```
hn

'READY-TO-OSI'



OSI/WYLBUR  01  06/07/78  7:56:35 A.M.
WELCOME TO OSI AND THE 370/158
INITIALS? sxc
ACCOUNT? [redacted]
KEYWORD? [redacted]
TERMINAL? a11
COMMAND ? c
    1.    ? //sxc   job (a026,sxc,1,0),'region 8 rtv test'
    2.    ? //  exec edsrtv8
    3.    ? //rtv.sysin dd *
    4.    ? 01 08     actions scheduled but not achieved 6/1/78 - 7/1/78
    5.    ? 10 dtsc e 060178
    6.    ? 10 dtsc l 070178
    7.    ? 10 dtsc h
    8.    ? 20 ai
    9.    ? 30 dtsc
   10.    ? 40 acid rssn atts cnty srce ptsn enum atsc
   11.    ? //
   12.    ? ***
COMMAND ? run hold unnumbered
019 IS YOUR JOB NUMBER.
COMMAND ? logoff clear
EDITING TIME = 0.04 SECONDS
WYLBUR EXCPS = 47
MILTEN EXCPS = 05
RESOURCE TIME = 4.47 SECONDS
ELAPSED TIME = 00:08:05
END OF SESSION
```

COLLECT RETRIEVAL TEXT

JOB NUMBER WILL BE USED IN FETCH COMMAND

Figure 11-2
PREPARING LOAD & GO

```
hm

'READY-TO-OSI'
"



OSI/WYLBUR  34  08/07/76  11:15:35 A.M.
WELCOME TO OSI AND THE IBM 370/158 'E' SYSTEM..........HAVE A NICE
INITIALS? mac
ACCOUNT? [redacted]
KEYWORD? [redacted]
TERMINAL? all
COMMAND ? collect                     COLLECT   TEXT   FOR   LOAD & G
    1.    ? pause
    2.    ? set terse
    3.    ? delete not 'OS' 1/2 in all
    4.    ? set length = 133
    5.    ? change ' ' to '' in all nolist
    6.    ? change 80/80 to 'n' in all nolist
    7.    ? set length = 80
    8.    ? list 1/15
    9.    ? list 1
   10.    ? ***
COMMAND ? modify 1
    1.      PUASE
 ALTERS ? rpause
    1.      PAUSE
 ALTERS ?
COMMAND ? save mkload on tso012       SAVE   TEXT
"MKLOAD" SAVED ON TSO012
COMMAND ? use mkload on tso012 clear
COMMAND ? l
    1.      PAUSE
    2.      SET TERSE
    3.      DELETE NOT 'OS' 1/2 IN ALL
    4.      SET LENGTH = 133
    5.      CHANGE ' ' TO '' IN ALL NOLIST
    6.      CHANGE 80/80 TO 'n' IN ALL NOLIST
    7.      SET LENGTH = 80
    8.      LIST 1/15
    9.      LIST 1
 COMMAND ?
```

[illegible]

```
[illegible]
```

[illegible]

11.3 Formal Reporting

On a quarterly basis, each region must submit certain reports to the Program Reporting Division. Several of these reporting requirements can be met by using the procedure which makes CDS data available to the Formal Reporting System. The link between CDS and FRS uses the standard milestone report together with other computer programs to provide data for the Formal Reporting System.

At the present, the specific output units/activity indicators linked from CDS to FRS are:

AIR OUTPUT 1

- o To date number of identified point sources in final compliance with emission regulations.
- o To date number of identified point sources out of compliance with final emission regulations.
- o To date number of identified point sources of unknown compliance with final emission regulations.
- o To date number of identified point sources in compliance with scheduled increments.
- o To date number of identified point sources overdue in meeting increments of progress in a schedule.
- o To date number of identified point sources of unknown status with scheduled increments.

AIR OUTPUT 3

- o Number of operating sources subject to NSPS determined to be in compliance.
- o Number of operating sources subject to NSPS of unknown compliance.
- o Number of operating sources subject to NSPS in violation.
- o Number of NSPS sources for which construction has commenced.

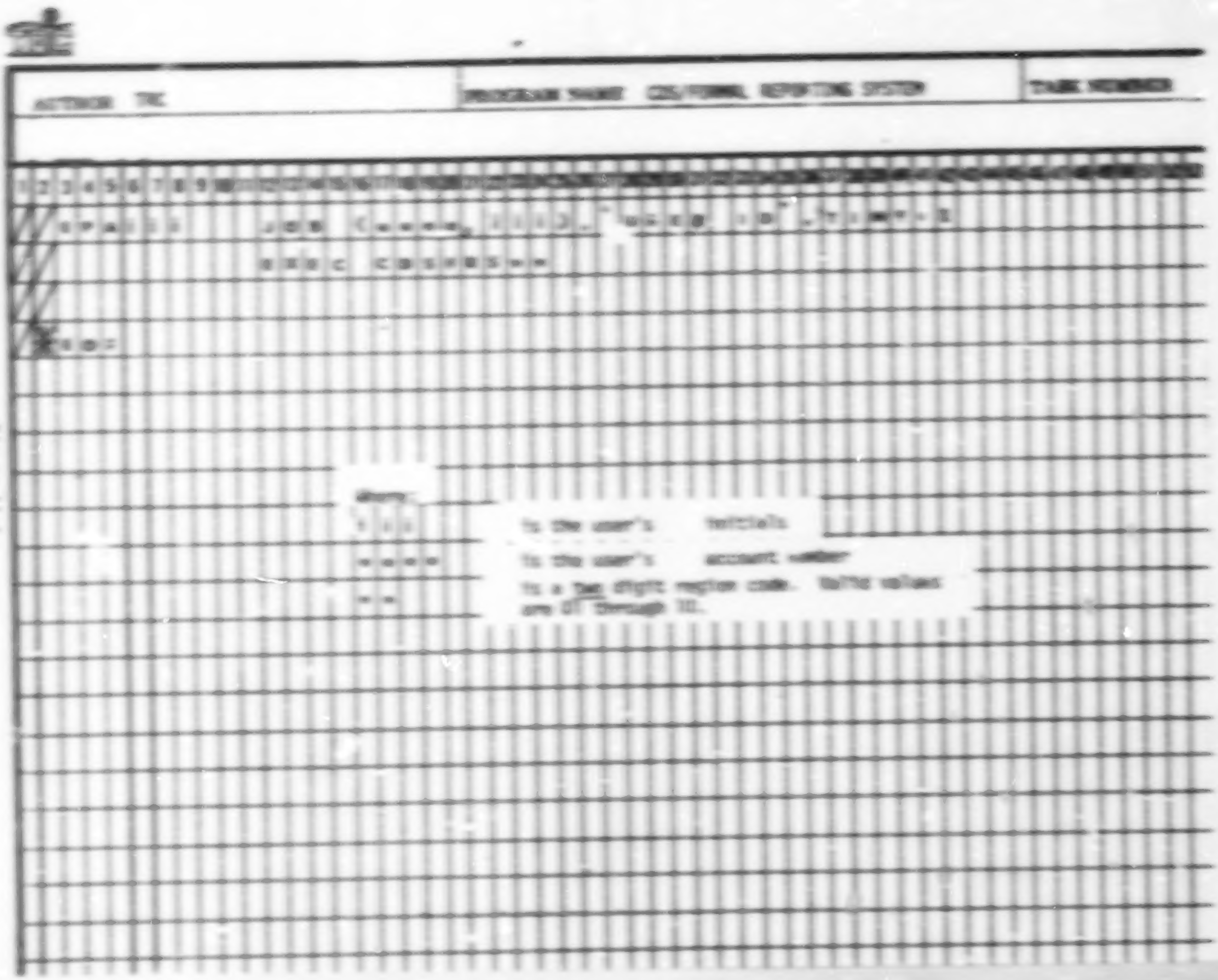
AIR OUTPUT 10

- o Number of sources subject to NESHAPS.
- o Number of NESHAPS sources in compliance with standards or waivers.

At a later date, other outputs may also be subject to the direct link between CDS and FRS.

During the third week following the end of each quarter, each region must submit the job control described in Figure 11-4. This computer job creates a data set containing all of the numbers for the Air Outputs described above.

In order to get a preview of what numbers will be sent from CDS to FRS, regional users are urged to submit this job at the end of each quarter. If changes are desired, input transactions can be prepared for the CDS Masterfile in time for the Formal Reporting. Each time the region runs the CDS/FRS link program, old data is replaced by the latest data from the CDS Masterfile. The Formal Reporting System only uses the most current data from the CDS/FRS link available on the 20th or 21st of the month following the end of the quarter.



AUTHOR TRC

PROGRAM NAME CIR/FRS REPORTING SYSTEM

TASK NUMBER

Where:

[illegible] is the user's initials

[illegible] is the user's account number

[illegible] is a two digit region code. Valid values are 01 through [illegible].

Figure 11-4
JOB CONTROL FOR CIR/FRS LINE

11.3 CDS Coding Guidance

Appendix B of the EPA Air Program Operating Guidance for FY 79 defines terms, outputs, and activity indicators associated with program planning and reports to headquarters. Section 5A of Appendix B relates directly to CDS and defines minimal requirements for the encoding of CDS. This memo is intended to assist you in implementing Section 5A by explaining these requirements as they relate to three program areas. This memo also conveys additional instructions relating to coding industrial boilers.

The specific areas addressed below are: coding CDS for sources in non-attainment AQCRs, coding continuous monitoring information, coding sources subject to new source review (NSR) and prevention of significant deterioration (PSD) requirements, and coding industrial boiler information. It is recommended that this memo, as well as Appendix B, be circulated to personnel involved in air enforcement, air program liaison with State agencies, and to CDS personnel.

In most regions, states are currently submitting information needed to meet the requirements of Appendix B. However, depending on current working agreements with States, some regions may find it necessary to acquire different or additional data from their State agencies. If at all possible, these arrangements should be part of the work plans now under preparation by States and regional offices.

Detailed explanations and instructions for coding CDS in four areas are included. These areas are described briefly below.

Coding sources in non-attainment areas

CDS "card 3" provides a group of new data fields which resulted from modification to the basic CDS program. Card 3 is to be completed for any source impacting non-attainment in a non-attainment AQCR (and for any other source for which the region wishes to enter data). Card 3 provides the capability of retrieving compliance status information for several pollutants at the facility level. It also has the capability to store data such as the facility production rate (capacity), although entry of this rate data is not required. Card 3 can be of significant use in strategy development for non-attainment AQCRs. It should be noted that to code card 3, regions will need access to compliance status information by pollutant (information you may not be receiving from your States at this time). See II.3.1 for additional information.

Coding related to continuous monitoring

Continuous monitoring is currently required for several NSPS source categories and will be required for SIP sources by FY 79. Currently very few monitors have been installed and there is virtually no information in CDS regarding source self-monitoring. II.3.2 establishes standard action types to be used in tracking installation of continuous monitors and recording results of excess emission reports.

Coding related to new source review(NSR)

Procedures for coding NSR related activities into CDS have been standardized to some extent. All 100-TPY (allowable) sources, NSPS sources and sources incurring an enforcement action while undergoing NSR must be entered into CDS via Air Program Code 7, New Source Review; all sources subject to PSD requirements must be entered via Air Program Code 6. Sources subject to both should be entered one for each program. Application review actions at the State(s) level need be tracked only for those programs delegated to the state for the source in question and only if the source has been monitored or audited by EPA. See II.3.3 for further details.

Coding power plants and industrial boilers

Fossil fuel-fired steam generators have long been identified as significant sources of air pollution. These sources include public utility steam-generating facilities, coal-fired industrial boilers (CFIB), and major fuel-burning installations (MFBI) and power plants affected by gas curtailment programs or prohibition orders. Coding instructions to enhance the quality, reliability, and utility of CDS data for such sources are included in II.3.4.

The five key coding requirements for fossil fuel-fired steam generators are:

1. 8-digit source classification codes (SCC) must be encoded for all CFIB and MFBI;

2. Process descriptions must be encoded for all steam-generator emission points;

3. Process descriptions of all boilers must be identified by the same ID number as the source uses;

4. Flagging symbols must be entered for CFIB and MFBI to identify ranges of boiler capacity;

5. Individual boiler capacity by emission point must be entered for all sources.

General coding guidance

Page 266 of the program planning document outlines the minimal data required for every source in CDS. For the 19 source categories listed in Table 2 of the guidance package (p.268-269), additional data required includes process description, SCC code, and emission category. Hence, for these 19 source categories, process level information will be needed, and obtaining this information, particularly the SCC code, may require modification of current information agreements with States. Except where explicit coding instructions are issued for a source category (such as that issued for iron and steel industry), these process level requirements apply only to sources in violation or of unknown compliance status.

Although guidance for coding NSR activities and continuous monitoring information will not be resource-intensive, the non-attainment AQCR encoding and process level coding for 19 major source categories could be. In order to minimize the impact on regional office personnel, DSSE contract funds have been made available for initial implementation of this coding guidance. Regions interested in assistance should contact their technical liaison at DSSE or Franklin Smith at (FTS) 755-0103.

Coding of all federal enforcement and surveillance into CDS is required by current guidance. Specifically Federal inspections, stack test, V.E. observations, NOV's, orders, criminal/civil actions, and Section 114 letters must be recorded in CDS. Regions should also code past actions into the system, although the priority is less than for coding current actions. Contract assistance is available to assist in coding these past actions.

Please refer to Table 3 (p. 270 of the operational guidance package for FY 78) for additional actions which are to be tracked in CDS.

For consistent reporting throughout the Fiscal Year, it generally will be necessary to implement these coding instructions by October 1, 1977. Coding of past enforcement and surveillance actions is not subject to this critical time constraint.

11.3.1.

Coding Card 3

Background

In order to support the FY 78 program plan requirements to develop adequate SIPs for TSP, SO_2, HC, CO, and NO_x in non-attainment areas, the CDS system must carry a number of new data elements which indicate the compliance status of a facility for each of the pollutants produced by the facility. Since these new data elements relate to source-level information on the CDS masterfile, they will be input to CDS by a new card type associated with source level data and they will be stored on the CDS masterfile next to the existing source record. Card 3, the new card type, will replace AIR2 and RDE1 non-attainment functions.

Data Field	Length	Valid Value
Source Pollutant Code	2	Same as for PLUT
Pollutant Compliance Status	1	Same as for CMST
Pollutant Emission Category	1	Same as for ECAT
Impacted AQCR Indicator	1	Blank for attainment "N" for non-attainment
Air Quality Maintenance Area Indicator	1	Blank for not an AQMA "Y" if the source is in AQMA for the pollutant
Pollutant Loading	5	Numeric

Because a facility can produce numerous pollutants, the input punch card has room for three sets of pollutant data, and multiple punch cards are needed for entering data for those facilities producing more than three different pollutants. The CDS masterfile will store all pollutant compliance data on one masterfile record; up to 10 sets of pollutant data will fit on one masterfile record. In addition to pollutant related data, several other data elements, such as plant capacity and more regional data elements, have been added to the system.

With these new data elements users are able to produce Milestone Reports and Quick Look Reports which meet all of the reporting requirements related to compliance status by pollutant.

Input Procedures

Card Type 3, which is not being used by CDS at the present, will be designated as the Pollutant Card. This card contains the following elements:

For a new card 3, users must code columns 1-19 with the key record identifier data, and they must code "C" in column 80, the Update Code. For each pollutant information being added to CDS, users must code the two-position Pollutant Code and whatever other data are available for that pollutant. Pollutant compliance must be coded for each applicable pollutant. The pollutant compliance status should represent the worst-case compliance of all the emission points producing that particular pollutant. The Air Quality Control Region Indicator must be blank if this pollutant from the facility does not impact the non-attainment AQCR standards; it must be "N" if the facility does impact the emission standards for this pollutant in a non-attainment AQCR or if the impact of the facility is unknown. Pollutant emission category must be coded for each applicable pollutant. This field must represent the potential uncontrolled emissions for the pollutant from the entire facility. The Air Quality Maintenance Area Indicator should show whether the area in which the facility is located has been designated as a maintenance area for that pollutant. AQMA's are identified in the *Federal Register* (40 CFR 52). There is a separate subpart in Part 52 for each State. AQMA's are listed in these subparts under the heading "Maintenance of national standards". If a pollutant loading factor is used, it should be a numeric value representing actual tons per year.

If a facility produces several pollutants, compliance information for the second and third pollutants may be coded in columns 37-40 and 49-52 in the same manner as for the first pollutant in column 25-28.

Facility capacity and new regional data elements may also be input on card 3 (optional). Facility capacity indicates the total output capacity of a source; appropriate units are set forth on page A-128 of the *CDS User's Guide*.

Users should note that pollutant data on card 3 may be entered many times since it is a repeating data element. However, Facility Capacity and the regional data elements are not repeating data elements. Only one value for each of these data elements can be stored on the CDS masterfile at one time. If a different Facility Capacity is coded on multiple card 3's for a facility, only the value on the last card will be placed on the CDS masterfile by the Update.

Finally, it should be emphasized that the only required coding of card 3 is for those sources which affect (contribute to) the non-attainment status of an AQCR. This requirement includes both major (Class A) and minor (Class B) sources and will assist us in evaluating not only the causes of non-attainment for a specific pollutant in an area but also the progress we are making toward attainment. Sources meeting this criterion should have all regulated pollutants they emit coded, not merely the non-attainment pollutant(s). This will allow the region to evaluate all aspects of the facilities compliance problems (at the facility level) and assist in prioritizing enforcement actions. However, unregulated pollutants or pollutants not emitted by the facility should not be entered. Finally, please note that although card 3 coding is required only for SIP sources, regions may find the available data fields useful for NSPS and NESHAPS sources, as well.

Additional Information

Additional information relating to changing pollutant compliance data, deleting compliance data, and retrieving data can be found in the 6/77 CDS User's Guide.

Table 11-1

Card 3 Format

Data Name	Card Column	Data Type	Length	Justified
Blank	20-21		2	
Pollutant 1	22-23	Alphanumeric	2	
Delete Flag 1	24	Alphanumeric	1	
Pollutant Compliance 1	25	Alphanumeric	1	
Pollutant Emission Category 1	26	Alphanumeric	1	
Pollutant Air Quality Maintenance Indicator 1	27	Alphanumeric	1	
Pollutant Air Quality Control Indicator 1	28	Alphanumeric	1	
Pollutant Loading 1	29-33	Numeric	5	Right
Pollutant 2	34-35	Alphanumeric	2	
Delete Flag 2	36	Alphanumeric	1	
Pollutant Compliance 2	37	Alphanumeric	1	
Pollutant Emission Category 2	38	Alphanumeric	1	
Pollutant Air Quality Maintenance Indicator 2	39	Alphanumeric	1	
Pollutant Air Quality Control Indicator 2	40	Alphanumeric	1	
Pollutant Loading 2	41-45	Numeric	5	Right
Pollutant 3	46-47	Alphanumeric	2	
Delete Flag 3	48	Alphanumeric	1	
Pollutant Compliance 3	49	Alphanumeric	1	
Pollutant Emission Category 3	50	Alphanumeric	1	
Pollutant Air Quality Maintenance Indicator 3	51	Alphanumeric	1	
Pollutant Air Quality Control Indicator 3	52	Alphanumeric	1	
Pollutant Loading 3	53-57	Numeric	5	Right
Facility Capacity	58-64	Alphanumeric	7	
Regional Data Element 9	65-71	Alphanumeric	7	
Regional Data Element 10	72-73	Alphanumeric	2	
Regional Data Element 11	74-75	Alphanumeric	2	
Regional Data Element 12	76	Alphanumeric	1	
Blank	77-79		3	

11.3.2.

CODING RELATED TO CONTINUOUS MONITORING

Background

Continuous monitoring (CM) is currently required for several NSPS source categories (e.g., nitric acid plants). Additional CM regulations applying to existing SIP sources are expected to be promulgated in FY 78. As the name implies, CM regulations require source owners to monitor their own emissions continuously. They are also required to report results periodically in an Excess Emissions Report (EER). The EER is required even if there are no excess emissions for the reporting period.

In the event there are excess emissions, there still could be circumstances which would convince EPA that enforcement action would be inappropriate. For lack of a better term, these excess emissions will be called "unenforceable excess emissions".

Coding Procedures

CDS will be coded for the following CM action types:

1. Notification of CM system demonstration date. Use action type M1. Code dates as appropriate. The initial inspection to verify a properly functioning system should be encoded as all other inspections (see #2, below).

2. Continuous monitoring system inspection. Use action action type M2. Code dates as appropriate. Code results as follows:

   = CM equipment properly operated = MC
   = CM equipment not properly operated = MV
   = State of CM equipment not determined = MU

3. EER submission. Use action type M3. Code dates, as appropriate. Code results as follows:

   = Enforceable excess emissions not found = MC
   = Enforceable excess emissions found = MV
   = State of compliance not determined = MU

(Enforceable excess emissions are excess emissions which are significant and not beyond the ability of the source owner/operator to prevent).

4. CM system test results. (Required currently by 60.13 (c).) Use action type M4. Code date schedule as 30 days after performance test is required. Code results as follows:

   - CM equipment meets requirements = MC
   - CM equipment does not meet requirements = MV
   - Status of CM equipment not determined = MU

5. To differentiate between SIP and NSPS sources, use the Air Program Code (column 65, card 2).

11.3.3.

CODING RELATED TO NEW SOURCE REVIEW AND PSD

Program Background

Several air pollution control regulations require preconstruction review and approval of new sources. These include:

1. Section 51.18-Review of new sources and modifications (subject to state implementation plans). In most cases the Federal function is one of oversight activity. The offset policy is an interpretative ruling of Section 51.18.

2. Section 52.21-Significant deterioration of air quality (19 major source categories emitting either PM or SO_2). This section defines allowable levels of air quality deterioration (in ug/m^3) resulting from new source construction in counties which did not pervasively exceed NAAQS during 1974. BACT is required for all sources in the 19 categories (attached). Although delegable to States, this task is generally a Federal responsibility at this time.

Background For Coding

For facilities subject to New Source Review (NSR) requirements, the facility and associated processes should be entered into CDS if:

(a) the subject process (or subject facility) will be capable of emitting 100 tons per year of any regulated pollutant, or

(b) the subject process (or subject facility) will be required to meet NSPS requirements, or

(c) a State or Federal enforcement action occurs in the course of the NSR of the subject process (or subject facility).

As with NSPS facilities, each subject process should be entered and maintained at the point level in CDS with a definitive process description, SCC code, emission category, and compliance code. Since the NSR (and PSD) program can logically be broken into two distinct functions, the permit application review and permit enforcement, the actions listed below for NSR that relate to permit enforcement (L1 through L8) should definitely be tracked. However, since EPA will only monitor or audit selected permits reviewed by States, the actions involving state application review process (S1 through S8) need be tracked only for these selected sources. If a permit is granted and specific conditions are set that must be enforced, CDS should contain a description in a comments field of the permit conditions, and if appropriate, new action types (e.g., progress reports due) should be established by calling the National CDS Data Bank Coordinator at (FTS)-755-0103.

All facilities and processes subject to Prevention of Significant Deterioration (PSD) requirements must be entered and maintained in CDS *regardless of size*. The general coding requirements for PSD sources are the same as for NSR sources. At a minimum, the actions listed below should be tracked in CDS where applicable. Where PSD has been delegated, only those applications monitored or audited by EPA should be tracked at the state level.

Since it is possible that any one facility may be subject to the requirements of several programs, such as SIP, NSR, and NSPS, it is important to ensure that the same facility is entered into CDS once for each of these programs, each time with the appropriate Air Program Code. Since most of the information remains the same from program to program, it should require less effort to enter the data at one sitting via duplication. The *CDS User's Manual* and operating guidance for CDS detail how the source coding should be conducted. The result is that the same facility will occur several times in CDS. However, under each facility, only the points (processes) which are subject to a particular program should be coded.

The action types and descriptions listed below are suggestions. If you have already established a system for coding NSR or PSD actions, please list your action type(s) and description(s) which correspond to those of HQ on a copy of the action type page and return it to HQ as soon as possible. If you do not yet have a system, we prefer that you use the one listed below

Specific Coding Instructions

Data Element	NSR Entry	PSD Entry
Source Number	(If a given source is subject to several air program regulations, multiple source numbers should be assigned, one for each program. To help tie together a facility subject to several programs, use the NEDS source number for the last four positions of each source number and the Air Program Code as the first position of the source number.	

Air Program Code	7	6
Air Program Status	(P, C, and O will all apply; even a 100- TPY source may escape detection and begin construction and even operation prior to agency analysis).	

Figure 11-5 Action Types for PSD and NSR

Action Type	Action Description
G1	Application Received by State
G2	Additional Info. Requested by State
G3	Application to State Complete
G4	Preliminary Determination by State
G5	Public Notice by State
G6	Public Hearing by State
G7	Final Determination by State
G8	Inspection by State
R1	Application Received by EPA
R2	Additional Info. Requested by EPA
R3	Application to EPA Complete
R4	Preliminary Determination by EPA
R5	Public Notice by EPA
R6	Public Hearing by EPA
R7*	Final Determination by EPA
R8	Inspection by EPA
T1	Offset Determination by State
T2	BACT Determination by State
T3	LAER Determination by State
T4	RACT Determination by State
T5	Offset Determination by EPA
T6	BACT Determination by EPA
T7	LAER Determination by EPA
T8	RACT Determination by EPA
L1	NOV Issued by State
L2	Order Issued by State
L3	Civil/Criminal Action by State
L4	(Reserved)
L5	NOV Issued by EPA
L6	Order Issued by EPA
L7	Civil/Criminal Action by EPA
L8	(Reserved)

Results Code	Results Code Description
01	Action Achieved
02	Action Not Achieved
03	Action Rescheduled

*All processes with a final determination by EPA approving a permit to operate should be duplicated (with appropriate changes) and added to the SIP file.

Figure 11-6

Sources Subject to PSD Requirements

(i) Fossil-Fuel Steam Electric Plants of more than 1000 million B.T.U. per hour heat input.
(ii) Coal Cleaning Plants.
(iii) Kraft Pulp Mills.
(iv) Portland Cement Plants.
(v) Primary Zinc Smelters.
(vi) Iron and Steel Mills.
(vii) Primary Aluminum Ore Reduction Plants.
(viii) Primary Copper Smelters.
(ix) Municipal Incinerators capable of charging more than 250 tons of refuse per 24 hour day.
(x) Sulfuric Acid Plants.
(xi) Petroleum Refineries.
(xii) Lime Plants.
(xiii) Phosphate Rock Processing Plants
(xiv) By-Product Coke Oven Batteries.
(xv) Sulfur Recovery Plants.
(xvi) Carbon Black Plants (furnace process).
(xvii) Primary Lead Smelters.
(xviii) Fuel Conversion Plants.
(xix) Ferroalloy production facilities commencing construction after October 5, 1975.

11.2.4

CODING INSTRUCTIONS FOR POWER PLANTS AND INDUSTRIAL BOILERS

Background

Fossil fuel-fired steam generators have long been identified as significant sources of air pollution. However, in the past, EPA has focused principally on public utility steam generating facilities with capacities of 25 megawatts (MW) or greater. These sources are identified and updated in the Compliance Data System (CDS) on a routine facility-by-facility basis. Retrievals of power plant data can be accomplished by selecting the proper Standard Industrial Classification (SIC) code. While compliance information on entire sources is generally up-to-date such data on a boiler-by-boiler basis are much less reliable.

Another significant fossil fuel-fired source of air pollution is coal-fired industrial boilers (CFIB). This source is identified as any coal-fired boiler with heat input capacity of 35 million British Thermal Units per hour (MMBTUH) or greater, excluding public utility steam generating plants (SIC 4911). CFIB are of particular concern because they make up nearly 17% of the total coal consumption by coal-fired stationary sources in the USA, including the largest power plants and coke ovens. Additionally, it has been estimated that 8% of TSP and 11% of SO_2 emissions result from coal-fired industrial and commercial boilers (Emission Reduction Study, ESED,1976). Some CFIB are currently entered in CDS. However, they fall into numerous SIC categories, making a convenient retrieval by this selection criterion impossible.

As a result of national energy conservation programs, special emphasis on fossil fuel-fired major fuel-burning installations (MFBI) and power plants affected by gas curtailment and the Energy Supply and Environmental Coordination Act (ESECA) activities is also necessary. Additional guidance relating to coding sources subject to gas curtailments or ESECA actions will be issued in the near future.

Coding Procedures

Special care in coding fossil fuel-fired steam generators (public utility power plants and CFIB) can enhance the quality, reliability, and utility of data in CDS. Much of the required information for existing CFIB can be found in the Task Report on CFIB or in the report's background documentation. To achieve this objective, the following activities will be necessary:

1. 8 - digit SCC codes must be entered in CDS for MFBI and CFIB steam-generator sources

Use columns 20-27 on card 5 for this purpose. A partial listing of SCC codes is included as Table II-2. This table provides the SCC ID and SCC category names for those sources for which emission factors are available. Please note that four levels of source identification (Roman numerals I, II, III, IV) are used. These four levels are sufficient to define a general category, and subcategories within the general category. The subcategories define classifications as to fuels, industrial processes, products, equipment types used, etc.

2. Process description must be completed in CDS for each steam-generator emission point.

Use SCC level III and IV terminology as process descriptors. This will be coded in columns 50-74 on card 5 for each emission point for CFIB, power plants, and MFBI. For instance, if a source burned dry, pulverised bituminous coal in boiler number 5, the process description on card 5 might be coded as "PULV DRY BIT COAL-BLR#5."

3. Process decription must identify steam generating units (boilers) entered in CDS by the same ID number as the source uses.

This instruction is intended to rectify identification problems which have occurred when sources (power plants, CFIB, and MFBI) do not operate sequentially numbered steam generation units. For instance, if a source identifies its boilers as 1, 3 and 7, they must similarly be identified in the process description of card 5.

4. Flagging symbols must be entered into NEXP (columns 78-79, card 5) to identify ranges of boiler heat input capacity for CFIB and MFBI

At present, for those sources identified by SCC code, a retrieval can be performed only for wide ranges of boiler heat input capacity. However, more exact source size data are often needed for such purposes as calculating emissions, identifying boiler capacity by emission point, and estimating coal demand. Because of the lack of data field space on CDS coding sheets, the exact boiler size can only be accommodated in the emission point comments of card 6 (see Activity #5 below). However, retrieval by comment level data cannot be executed nor are such data available on Quick Look Reports. Therefore, flagging symbols narrowing SCC-defined boiler capacity ranges have been established for encoding into NRRP (columns 28-29, card 5) as follows:

SCC-defined capacity range (in MMBTUH)	Flagging symbol (to be inserted in col. 28-29, card 5)	Flagging symbol capacity range (in MMBTUH)
<10	B1	<10
10-100	B2	10-34
	B3	35-64
	B4	65-100
>100	B5	101-250
	B6	251-650
	B7	651-1000
	B8	>1000

5. Individual boiler heat input capacity per emission point must be entered in CDS for all steam generator sources.

Use columns 20-79 of card 6. Please enter the exact boiler heat input capacity for each emission point, identified by the source's boiler ID number. Boiler capacity should be identified in terms of MW for public utility steam generators and in MMBTUH for CFIB and NFBI.

Table II- 2

SOURCE CLASSIFICATION CODES (partial list)

NATIONAL EMISSIONS DATA SYSTEM (NEDS)
SOURCE CLASSIFICATION CODE (SCC) REPORT

[illegible]

NATIONAL EMISSIONS DATA SYSTEM (NEDS), SOURCE CLASSIFICATION CODE (SCC) REPORT

[illegible]

[illegible]

[illegible]

NATIONAL EMISSIONS DATA SYSTEM (NEDS)
SOURCE CLASSIFICATION CODE (SCC) REPORT

References:

1. Compilation of Air Pollutant Emission Factors. U.S. Environmental Protection Agency: Office of Air Programs. OAP Publication No. AP-42. Research Triangle Park, NC.

2. Guide for Compiling Comprehensive Emission Inventory. U.S. Environmental Protection Agency. OAQPS. Publication No. APTD-1135. Research Triangle Park, NC. March 1973.

APPENDIX A

CDS
DATA ELEMENT DESCRIPTION

DATA ELEMENT DIRECTORY

The CDS Data Element Description sheets in this appendix are arranged in the following order:

Data Element

Page	Data Required on All Cards
A-2	Region
A-3	State
A-5	County Code
A-6	Source Number
A-7	Emission Point Number
A-8	Action Number
A-9	Update Code
A-11	Card Code

Card 1

A-12	AQCR
A-13	City Code
A-14	Source Name
A-18	Street Address
A-19	Regional Data Element 1
A-20	Regional Data Element 2
A-21	Regional Data Element 3
A-22	Regional Data Element 4
A-23	Regional Data Element 5

Card 2

A-24	City Name
A-25	Zip Code
A-26	State Registration Number
A-27	NEDS Cross Reference
A-28	SIC Code
A-29	Federal Facility Code
A-30	Air Program Code
A-30A	Air Program Status
A-31	Regional Data Element 6
A-32	Staff Personnel Code-Source

Card 3

A-32A	Pollutant
A-32B	Pollutant Delete Flag
A-32C	Pollutant Compliance
A-32D	Pollutant Emission Category
A-32E	Pollutant Air Quality Maintenance Indicator
A-32F	Pollutant Air Quality Control Indicator
A-32G	Pollutant Loading
A-32H	Facility Capacity
A-32I	Regional Data Element 9
A-32J	Regional Data Element 10
A-32K	Regional Data Element 11
A-32L	Regional Data Element 12

Cards 4, 6, 8

A-33	Line Number
A-34	Comments

Card 5

A-35	SCC Code
A-36	NEDS Emission Cross Reference
A-37	Compliance Status
A-38	SIP Code
A-39	Pollutant Code
A-40	State Regulation
A-40A	Emission Category
A-41	Process Description
A-42	Multiple Cross Reference
A-43	Regional Data Element 7
A-43A	Air Program 2

Card 7

A-44	Action Type
A-45	Date Achieved
A-46	Date Scheduled
A-47	Action Staff Code
A-48	Results Code
A-48A	Regional Data Element 8

Generated Data

A-49	Action Description
A-50	County Name
A-51	Date Last Updated
A-52	Record Type
A-53	Staff Name (Action)
A-54	Staff Title
A-55	Staff Name (Source)
A-56	Staff Abbreviation
A-57	Emission Category Description
A-58	Compliance Status Description
A-59	SIP Code Description
A-60	Results Code Description
A-61	Air Program Description
A-62	Old Compliance Status
A-63	Basic Pollution Information

Revised: 12/76

Definition: REGION is a two position numeric region identifier.

Retrieval Abbreviation	REGN	*Valid Values:* 01 through 10 See attachment showing the region locations and the states associated with each region.	
Card Type	1-B		
Card Columns	1-2		
Data Element Length	2		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	20-47
Required on New Entry	YES	*Masterfile Position*	1-2
Nationally Controlled	YES	*Masterfile Length*	2

Edit Error Messages:

*** INVALID REGION CODE

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

Region must be present on all input transactions. State code and region are cross-validated; the user may not use a state code which is not valid for his region.

Region cannot be changed or blanked out once it has been put on the data base. If it must be changed, the entire source must be deleted and re-entered with the correct region code.

Region Code. States have been assigned to regions as follows:

REGION	STATES
01-Boston	Connecticut, Maine, Massachusetts New Hampshire, Rhode Island, Vermont.
02-New York	New Jersey, New York, Puerto Rico, Virgin Islands.
03-Philadelphia	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.
04-Atlanta	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.
05-Chicago	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.
06-Dallas	Arkansas, Louisiana, New Mexico, Oklahoma, Texas.
07-Kansas City	Iowa, Kansas, Missouri, Nebraska.
08-Denver	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming.
09-San Francisco	Arizona, California, Hawaii, Nevada, Guam, American Samoa, Trust Territories.
10-Seattle	Alaska, Idaho, Oregon, Washington.

Definition: STATE is a two-position numeric state code. The State codes are derived from the SAROAD manual.

Retrieval Abbreviation	STTE	*Valid Values:* 01 through 56 See attachment showing the states associated with each state code.	
Card Type	1-8		
Card Columns	3-4		
Data Element Length	2		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	30-47
Required on New Entry	YES	*Masterfile Position*	3-4
Nationally Controlled	YES	*Masterfile Length*	2

Edit Error Messages:

*** INVALID STATE CODE

*** STATE NOT IN REGION

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

State code must be present on all transactions. State must be valid for the region. State cannot be changed or blanked out on the data base. If it must be changed, the entire source must be deleted and re-entered with the correct state code.

__State Code__: The CDS System uses the following two digit SAROAD state codes:

STATE CODE:

01	Alabama
02	Alaska
03	Arizona
04	Arkansas
05	California
06	Colorado
07	Connecticut
08	Delaware
09	District of Columbia
10	Florida
11	Georgia
12	Hawaii
13	Idaho
14	Illinois
15	Indiana
16	Iowa
17	Kansas
18	Kentucky
19	Louisiana
20	Maine
21	Maryland
22	Massachusetts
23	Michigan
24	Minnesota
25	Mississippi
26	Missouri
27	Montana
28	Nebraska
29	Nevada
30	New Hampshire
31	New Jersey
32	New Mexico
33	New York
34	North Carolina
35	North Dakota
36	Ohio
37	Oklahoma
38	Oregon
39	Pennsylvania
40	Puerto Rico
41	Rhode Island
42	South Carolina
43	South Dakota
44	Tennessee
45	Texas
46	Utah
47	Vermont
48	Virginia
49	Washington
50	West Virginia
51	Wisconsin
52	Wyoming
53	American Samoa
54	Guam
55	Virgin Islands
56	Trust Territories

Definition: COUNTY CODE is a four digit numeric county identifier. The County Codes are derived from the SAROAD manual.

Retrieval Abbreviation	CNTY	*Valid Values:* All county codes must be present on the CDS County Code/AQCR Table.	
Card Type	1-8		
Card Columns	5-8		
Data Element Length	4		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	20-47
Required on New Entry	YES	*Masterfile Position*	5-8
Nationally Controlled	YES	*Masterfile Length*	4

Edit Error Messages:

*** INCORRECT COUNTY CODE FOR STATE

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

Please contact the Central DPC to update the county code file. County code must be present on all transactions; it cannot be changed or blanked out on the data base.

Definition: SOURCE NUMBER is a five digit numeric facility identifier.

Retrieval Abbreviation	SRCN	*Valid Values:* All numeric values	
Card Type	1-8		
Card Columns	9-13		
Data Element Length	5		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	20-47
Required on New Entry	YES	*Masterfile Position*	9-13
Nationally Controlled	NO	*Masterfile Length*	5

Edit Error Messages:

*** SOURCE NUMBER MUST BE NUMERIC

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

The NEDS source numbering convention should be used wherever possible when adding a new source. Otherwise, assign the next highest sequential source number within the county. No meaning should be given to Source Number; Source Number ranges must not be used to identify certain types of sources. Other data elements are available for this purpose.

EMISSION POINT NUMBER

Definition: EMISSION POINT NUMBER is a three digit numeric emission point identifier. If one physical emission point produces several pollutants, each pollutant is assigned a separate emission point number. Emission point 000 refers to the entire source.

Retrieval Abbreviation	PTNO	*Valid Values:*	
Card Type	1-8	000 through 999	
Card Columns	14-16		
Data Element Length	3		
Data Type	NUMERIC		
Justified	LEFT	*MasterFile Record Type*	40-47
Required on New Entry	YES	*MasterFile Position*	14-16
Nationally Controlled	NO	*MasterFile Length*	

Edit Error Messages:

*** EMISSION POINT MUST BE ZEROS
*** POINT MUST BE GREATER THAN ZERO
*** DO NOT DELETE POINT 000

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

When a card type 1 is entered as a new transaction, an emission point 000 is generated by the system; however, it is possible to enter an emission point 000 as a new transaction at the same time a card type 1 is entered as new.

Point number must be zero for card types 1, 2, and 4. It must be greater than zero for cards 5, 6, 7, and 8. An emission point cannot be added to the data base as new unless a card type 1 has been entered at the same time or at a previous time.

Point 000 cannot be deleted unless the source itself is deleted with a card type 1.

Emission Point Numbers other than 000 should have no special meaning. Point number ranges must not be used to identify certain types of points. Other data elements are available for this purpose.

ACTION NUMBER

Definition: ACTION NUMBER is a two digit numeric sequential action identifier.

Retrieval Abbreviation	ANUM	*Valid Values:* 00 through 99	
Card Type	1-8		
Card Columns	17-18		
Data Element Length	2		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	10-47
Required on New Entry	YES	*Masterfile Position*	17-18
Nationally Controlled	NO	*Masterfile Length*	2

Edit Error Messages:

*** ACTION NUMBER MUST BE ZEROS
*** ACTION NUM MUST BE GREATER THAN ZERO

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

Actions should be assigned sequentially starting with 01. When adding only one new action to the data base, code 99; the system will convert the 99 to the next highest sequential action number for that emission point. When adding several actions for a given point, one must consult a source data report to see what action numbers are already being used on the data base.

An action number cannot be added to the data base unless the emission point for that action is also being added or it already exists on the data base. Each action number must be associated with an emission point.

Action number must be 00 for card types 1 through 6; it must be greater than zero for card types 7 and 8.

Action numbers should have no special meaning. Action number ranges must not be used to identify certain types of actions.

Definition: UPDATE CODE tells the update program to add, change, or delete a transaction. This data element is not carried on the masterfile but serves to tell the update program what to do with other data on the input transaction.

Retrieval Abbreviation	N/A	*Valid Values:* N = New C = Change D = Delete	
Card Type	1-8		
Card Columns	80		
Data Element Length	1		
Data Type	ALPHA		
Justified		*Masterfile Record Type*	
Required on New Entry	YES	*Masterfile Position*	
Nationally Controlled	YES	*Masterfile Length*	

Edit Error Messages:

*** UPDATE CODE D INVALID FOR CARD TYPE 2 & 3
*** INVALID UPDATE CODE
*** DO NOT DELETE POINT 000
*** NO DATA IN COL 21-79 FOR DELETES

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

The CDS-EDIT only validates the existence of the update code; it is the Update report which points out incorrect or illogical update codes.

Each card type, except card type 3, has a corresponding record type on the CDS data base. If a card type 1, 4, 5, 6, 7, or 8 has not already created a masterfile record type, it must be added as New. Each point, action, or comment record must be associated with a corresponding source record. Each point comment must be associated with a point. Each action must be associated with a point. Each action comment must be associated with an action.

Key data elements (region, state, county, source, point, and action numbers) cannot be changed. Other data elements can be changed by using the update code 'C'. Only those record types which have been successfully added as new prior to this update cycle can be changed. Only those data elements which are actually being changed need to be added on a change transaction. By coding an asterisk anywhere in a data field, that data field will be changed to spaces (data values will be zeroed out.)

CODING CONSIDERATIONS (Continued)

The update code 'D' deletes one or more records on the FDB data base. A card type 1 delete will delete all masterfile records for a given source.

A card type 5 delete will delete a point together with all associated comments, actions, and action comments. Point 00 cannot be deleted unless a card type 1 is used for the delete function.

A card type 7 delete will delete an action together with all associated action comments.

A card type 4, 6, or 8 delete must have a valid line number. One delete card is needed to delete each comment line number.

No data may be punched in columns 21 through 79 for deletes to protect the data base against a mispunched delete update code.

A Card 2 delete is invalid.

CARD CODE

Definition: CARD CODE is a one digit numeric field which identifies the type of fixed format information found on the CDS input punch card.

Retrieval Abbreviation	
Card Type	1-8
Card Columns	19
Data Element Length	1
Data Type	NUMERIC
Justified	
Required on New Entry	YES
Nationally Controlled	YES

Valid Values:

1 = source record
2 = source record
3 = pollutant record
4 = source comment
5 = emission point record
6 = emission point comment
7 = action record
8 = action comment

Masterfile Record Type	
Masterfile Position	
Masterfile Length	

Edit Error Messages:

*** INVALID CARD CODE

*** = Fatal Error
* = Warning Error

Coding Considerations:

Definition: AQCR is the Air Quality Control Region, a three digit numeric value.

Retrieval Abbreviation	AQCR	*Valid Values:* Must be valid for the state and the county codes used. Blank is also valid. Please contact the central DRC to add a new AQCR to the County Code/AQCR Table.	
Card Type	1		
Card Column	20-22		
Data Element Length	3		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	20
Required on New Entry	YES	*Masterfile Position*	21-23
Nationally Controlled	YES	*Masterfile Length*	3

Edit Error Messages:

* INCORRECT AQCR FOR COUNTY

**** = Fatal Error* ** = Warning Error*

Coding Considerations:

The County Code/AQCR Table containing all valid AQCR's can be found in Appendix B. Please consult the SAROAD manual or the NEDS Guide to find out the correct AQCR for each county.

CITY CODE

Definition: CITY CODE is a four digit numeric city identifier. The City Codes can be found in the SAROAD manual.

Retrieval Abbreviation	CYCD	*Valid Values:* If the field is being used, it should be a four digit numeric code found in the SAROAD manual.	
Card Type	1		
Card Columns	23-26		
Data Element Length	4		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	2#
Required on New Entry	NO	*Masterfile Position*	24-27
Nationally Controlled	NO	*Masterfile Length*	4
Edit Error Messages: * CITY CODE SHOULD BE NUMERIC			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

City codes are available from the SAROAD manual.

Definition: SOURCE NAME is a 30 position alphanumeric facility identifier.

Retrieval Abbreviation	SNAM	*Valid Values:* All alphanumeric characters.	
Card Type	1		
Card Columns	17-46		
Data Element Length	30		
Data Type	ALPHANUMERIC		
Justified	LEFT	*Masterfile Record Type*	20
Required on New Entry	YES	*Masterfile Position*	18-47
Nationally Controlled	NO	*Masterfile Length*	30

Edit Error Messages:

*** SOURCE NAME REQUIRED ON NEW ENTRY

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

The first position of facility name must be filled in on a new transaction to allow for source name sorting on the retrieval. Use consistent abbreviations for facilities with the same company name, i.e.,

US Steel - Pittsburgh
US Steel - Dayton
US Steel - Mansfield

Abbreviate only when necessary and do not use words like "the" or "city of" as the first word in a facility name. If the name of the facility is different from that of the parent company, enter the name of the facility as the source name and enter the name of the parent company as a source comment (card code 4). Most complete source names, addresses, and SIC codes can be found in manufacturing directories. It would be wise for each region to develop a list of standard facility name abbreviations to be used consistently throughout the region. See the attached example developed by Region V.

** No punctuation unless specified on sheet

Region V Coding Convention for Michigan

Full Name	Abbreviation
Asphalt	Asph
Aluminum	Al
Authority	Auth
Air Force Base	AFB
Board of Public Light & Power	Detroit--Detroit BD Publ L&P
Center	Ctr
Commission	Comm
Cannon	Can
Commonwealth Edison	Com Ed
Concrete	Con
Cement	Cem
Consumers Power	Do not Abbrev.
Chemical	Chem (abbreviate only if necessary)
County	Co
Chicago & Northwestern Railroad	Chicago & NW RR
Construction	Const
Company or Inc. at end of name	Eliminate, do not use
Central Illinois Light Company	CILCO
City of Detroit	Detroit City--use name first followed by city, if public or municipal company
Central Wayne	Wayne C
Department	Dept
Detroit Edison--River Rouge Plant	Name Under Address put plant name Detroit Edison River Rouge Plt
Division	Div
Equipment	Equip

Full Name	Abbreviation	
Ford Motor Company-Assembly Div	**Name**	**Under Add Put Plans Name**
	Ford Motor	Assembly Div
Foundry (i.e. General Foundry)	Spell out--do not abbreviate	
General Motors Corporation -Fisher Body	**Name**	**Under St, Add Put Plant Name**
	GM	Fisher Body
Generating	Gnr	
Goodyear Tire & Rubber	Goodyear Tire&Rubber No blanks between "&"	
Great Lakes Steel-ZUG Island	**Name**	**Under St, Add Put Plant Name**
	Great Lakes Steel	Zug Island
Groveland Mine Hanna	Hanna Mining	Groveland Mine
Grand Rapids	GD Rapids	
Hospital	Hosp	
Incinerator	Incin	
Industries	Indst	
International	Intnl	
Jones & Laughlin Steel	Jones & Laughlin spell out, omit Steel	
Light & Power	L&P	
Lumber	Lmbr	
Malleable	Malleb	
Manufacturing	Mfg	
Michigan	Mich	
Motor	Mtr	
North East (ern)	NE	
North West (ern)	NW	
Norther Michigan Electrical Co-op	Northern Mich Elec	

Full Name	Abbreviation
Operation	Op
Packaging Corporation of America	Packaging Corp AM
Paving	Pav
Plant	Plt
Power	Pwr
Project	Prj
Products	Prod
Public	Publ
Railroad	RR
Refractories	Ref
Refining	Refin
Sanitation	Sani
Sewage Treatment Plant (Wastewater)	Stp
State-Street	St
Station	Sta
Southside Foundry	Spell out, do not abbreviate
Southeast-Southwest (ern)	SE-SW
Terminal	Term
Training	Trn
Transportation	Transp
Township	Twp
United States Steel	US Steel no spaces
University	Univ
Warehouse	Whse
Water & Power	W&P
Water Treatment Plant	WTP
Wholesale	Whsl

Definition: STREET ADDRESS is the actual location of the facility; it is not the headquarters address.

Retrieval Abbreviation	STRT	*Valid Values:* All alphanumeric characters.	
Card Type	1		
Card Columns	47-66		
Data Element Length	20		
Data Type	ALPHANUMERIC		
Justified	LEFT	*Masterfile Record Type*	20
Required on New Entry	NO	*Masterfile Position*	48-67
Nationally Controlled	NO	*Masterfile Length*	20
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

If the mailing address of the facility is different from the street address, the mailing address can be coded on a source comment record (Card 4).

Definition: User supplied.

Retrieval Abbreviation	RDE1	*Valid Values:*	All alphanumeric characters.
Card Type	1		
Card Columns	67		
Data Element Length	1		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	20
Required on New Entry	NO	*Masterfile Position*	140
Nationally Controlled	NO	*Masterfile Length*	1
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

A "1" in this field has temporarily been specified by the central DBC as a designator for facilities impacting an ambient standard in a non-attainment AQCR.

Card Type 1
Data Element Sheet

REGIONAL DATA ELEMENT 2

Definition: User supplied.

Retrieval Abbreviation	RDE2	Valid Values: All alphanumeric characters.	
Card Type	1		
Card Columns	68		
Data Element Length	1		
Data Type	ALPHANUMERIC		
Justified		Masterfile Record Type	20
Required on New Entry	NO	Masterfile Position	161
Nationally Controlled	NO	Masterfile Length	1

Edit Error Messages:

*** = Fatal Error   * = Warning Error

Coding Considerations:

Definition: User supplied.

Retrieval Abbreviation	RDE1	*Valid Values:*	
Card Type	1		
Card Columns	69		
Data Element Length	1		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	10
Required on New Entry	NO	*Masterfile Position*	142
Nationally Controlled	NO	*Masterfile Length*	1
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

REGIONAL DATA ELEMENT 4

Definition: User supplied.

Retrieval Abbreviation	RDE4	*Valid Values:* All alphanumeric characters
Card Type	1	
Card Columns	70-74	
Data Element Length	5	
Data Type	ALPHANUMERIC	

Justified		*Masterfile Record Type*	20
Required on New Entry	NO	*Masterfile Position*	143-147
Nationally Controlled	NO	*Masterfile Length*	5

Edit Error Messages:

**** = Fatal Error* ** = Warning Error*

Coding Considerations:

If there is a need to have a second SIC Code for a facility, this field could be used since it appears next to the SIC Code on the Source Data Report. If this data element is used for the SIC Code, only the first four positions may be used; columns 70-73 must be numeric and column 74 must be blank.

REGIONAL DATA ELEMENT 5

Definition: User supplied.

Retrieval Abbreviation	RDE5	*Valid Values:* All alphanumeric characters.	
Card Type	1		
Card Columns	75-79		
Data Element Length	5		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	20
Required on New Entry	NO	*Masterfile Position*	148-152
Nationally Controlled	NO	*Masterfile Length*	5
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

Definition: CITY NAME gives the location of the facility.

Retrieval Abbreviation	CYNM	*Valid Values:* All alphanumeric characters	
Card Type	2		
Card Columns	20-34		
Data Element Length	15		
Data Type	ALPHANUMERIC		
Justified	LEFT	*Masterfile Record Type*	20
Required on New Entry	NO	*Masterfile Position*	68-82
Nationally Controlled	NO	*Masterfile Length*	15

Edit Error Messages:

**** = Fatal Error* ** = Warning Error*

Coding Considerations:

If abbreviations are used, they should be used consistently for all input to facilitate sorting and retrievals.

ZIP CODE

Definition: ZIP CODE is the five digit numeric postal zone.

Retrieval Abbreviation	ZIPC	Valid Values: All numeric values.	
Card Type	1		
Card Columns	35-39		
Data Element Length	5		
Data Type	NUMERIC		
Justified	LEFT	Master File Record Type	10
Required on New Entry	NO	Master File Position	05-09
Nationally Controlled	NO	Master File Length	5

Edit Error Messages:

* ZIP CODE SHOULD BE NUMERIC

*** = Fatal Error   * = Warning Error

Coding Considerations:

Definition: STATE REGISTRATION NUMBER is an alphanumeric identifier used by the state to identify a facility.

Retrieval Abbreviation	STRG	Valid Values: All alphanumeric characters.	
Card Type	1		
Card Columns	40-54		
Data Element Length	15		
Data Type	ALPHANUMERIC		
Justified	LEFT	Historfile Record Type	10
Required on New Entry	NO	Historfile Position	90-104
Nationally Controlled	NO	Historfile Length	15
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

Coding Considerations:

Definition: NEDS CROSS REFERENCE is the NEDS facility identifier.

Retrieval Abbreviation	NEDS	*Valid Values:* All alphanumeric values.	
Card Type	1		
Card Columns	55-58		
Data Element Length	4		
Data Type	Alphanumeric		
Justified	LEFT	*MasterFile Record Type*	10
Required on New Entry	YES	*MasterFile Position*	105-108
Nationally Controlled	YES	*MasterFile Length*	4
Edit Error Messages:			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

Whenever a new facility is being added as New, this field must be coded. If the NEDS number is not known, please consult the AEROS contact in your area to get a NEDS facility number.

Definition: SIC is the Standard Industrial Class Code. It refers to the primary product produced or service performed by the facility.

Retrieval Abbreviation	SICC	*Valid Values:* All numerics.	
Card Type	2		
Card Columns	39-42		
Data Element Length	4		
Data Type	NUMERIC		
Justified	LEFT	*MasterFile Record Type*	18
Required on New Entry	YES	*MasterFile Position*	109-112
Nationally Controlled	YES	*MasterFile Length*	4

Edit Error Messages:

* SIC SHOULD BE NUMERIC

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

Since many retrievals are based on industry categories, it is important to code this field on a new card code 2. If a secondary SIC code is needed, Regional Data Element 4 may be used. SIC codes may be obtained from manufacturing directories or the most recent SIC directory.

FEDERAL FACILITY CODE

Definition: FEDERAL FACILITY CODE identifies facilities owned or operated by the federal government. Federal facilities such as army bases fall into a separate jurisdiction from private industry.

Retrieval Abbreviation	[illegible]	Valid Values:	blank or zero = sources not owned or operated by the federal government. 1 = sources owned or operated by the federal government.
Card Type	1		
Card Columns	41		
Data Element Length	1		
Data Type	NUMERIC	Master File Record Type	10
Justified		Master File Position	111
Required on New Entry	NO	Master File Length	1
Nationally Controlled	YES		

Edit Error Messages:

* INVALID FEDERAL FACILITY CODE

*** = Fatal Error   * = Warning Error

Coding Considerations:

Definition: AIR PROGRAM CODE is a source indicator used to separate NSPS sources, NESHAPS sources, sources subject to federal EPA jurisdiction, and sources subject to state EPA jurisdiction. It can also be used to denote a facility which has been closed down.

Retrieval Abbreviation	APCD	Valid Values: Blank or 0 = SIP Source 1 = federal jurisdiction - Active 4 = ESECA 5 = other 6 = non-significant deterioration 7 = new source review 8 = NESHAPS 9 = NSPS C = closed/inactive	
Card Type	1		
Card Columns	65		
Data Element Length	1		
Data Type	ALPHANUMERIC		
Justified		Masterfile Record Type	20
Required on New Entry	NO	Masterfile Position	115
Nationally Controlled	YES	Masterfile Length	1

Edit Error Messages:

* INVALID AIR PROGRAM CODE

*** = Fatal Error   * = Warning Error

Coding Considerations:

For a SIP source, the State has primary jurisdiction for enforcement activity.

For an Active facility, the Federal EPA has primary jurisdiction for enforcement.

If a given source is subject to several air program regulations, multiple source numbers should be assigned, one for each program.

To help tie together a facility subject to several programs, use the NEDS source number for the last four positions of each source number and the air program code as the first position of the source number.

If a facility has been closed down, Active/Passive Code "C" must be used to indicate that the facility is closed. This code is to be used only after the end of the fiscal year in which the facility was closed.

Card Type 1
Data Element Sheet

Definition: AIR PROGRAM STATUS represents the status of a facility for a given air program.

Retrieval Abbreviation	APST	Valid Values:	P = Planned C = Under Construction O = Operating D = Demolition [illegible] = [illegible]
Card Type	1		
Card Column	66		
Data Element Length	1		
Data Type	Alphanumeric		
Justified		MasterFile Record Type	10
Required on New Entry	No	MasterFile Position	180
Nationally Controlled	Yes	MasterFile Length	1

Edit Error Messages:

* Invalid Air Program Status

*** = Fatal Error   * = Warning Error

Coding Considerations:

Card Type 1
Data Element Sheet

REGIONAL DATA ELEMENT 6

__Definition:__ User supplied.

Retrieval Abbreviation	RDE6	Valid Values: All alphanumeric values.	
Card Type	3		
Card Columns	67-76		
Data Element Length	10		
Data Type	ALPHANUMERIC		
Justified		Masterfile Record Type	20
Required on New Entry	NO	Masterfile Position	153-162
Nationally Controlled	NO	Masterfile Length	10
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

__Coding Considerations:__

Definition: STAFF PERSONNEL CODE is a three position code representing the person or group assigned to monitor the facility. It consists of one alpha character followed by 2 numeric characters.

Retrieval Abbreviation	PERS
Card Type	1
Card Columns	77-79
Data Element Length	3
Data Type	ALPHANUMERIC
Justified	LEFT
Required on New Entry	NO
Nationally Controlled	YES

Valid Values:

Must exist on the Personnel Table maintained by the national DBC. Please call the DBC to add, change or delete entries to this table.

Masterfile Record Type	10
Masterfile Position	116-118
Masterfile Length	3

Edit Error Messages:

* INVALID STAFF CODE

*** = Fatal Error

* = Warning Error

Coding Considerations:

The assigned person's name is generated by the Update Program based on the name found on the Personnel Table.

Definition: POLLUTANT-ID is used to identify the pollutant for which pollutant compliance data is being entered.

Retrieval Abbreviation	PLLT	*Valid Values:* Same as for Pollutant Code. See pages A-39 for a list of all valid codes	
Card Type	3		
Card Columns	22-23; 34-35; 46-47		
Data Element Length	2		
Data Type	ALPHANUMERIC		
Justified	LEFT	*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	REPEATING
Nationally Controlled	YES	*Masterfile Length*	2

Edit Error Messages:

* INVALID POLLUTANT CODE

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

This field must be filled in whenever repeating pollutant data is entered on a Card 3. No data for any of the repeating pollutant compliance data elements can be placed on the Masterfile without a valid Pollutant-ID.

Definition: POLLUTANT DELETE FLAG is used to remove from the Masterfile all data related to a pollutant.

Retrieval Abbreviation	N/A	*Valid Values:* Blank or 'D'	
Card Type	3		
Card Columns	24; 36; 48		
Data Element Length	1		
Data Type	ALPHABETIC		
Justified		*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	REPEATING
Nationally Controlled	YES	*Masterfile Length*	1

Edit Error Messages:

* INVALID POLLUTANT DELETE FLAG

* NO DATA TO FOLLOW DELETE FLAG

**** = Fatal Error* * = *Warning Error*

Coding Considerations:

A 'D' in the Delete Flag signifies that the data entered for a given pollutant should be completely eliminated. The pollutant compliance, emission category, air quality maintenance indicator, air quality control indicator, and loading are blanked out by the Update program when a 'D' is coded next to a pollutant on a Card 3.

Definition: POLLUTANT COMPLIANCE indicates the worst case source compliance for a given pollutant based on all of the emission points producing the indicated pollutants.

Retrieval Abbreviation	PCMS	*Valid Values:* Same as CMST, see page A-37 for a complete listing of values and meanings.	
Card Type	3		
Card Columns	25; 37; 49		
Data Element Length	1		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	REPEATING
Nationally Controlled	YES	*Masterfile Length*	1
Edit Error Messages: * INVALID COMPLIANCE STATUS			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

Definition: POLLUTANT EMISSION CATEGORY represents the total potential uncontrolled emission of a given pollutant for a source.

Retrieval Abbreviation	PECT	*Valid Values:* See page A-40A for a list of all valid Emission Category codes.	
Card Type	5		
Card Columns	26; 38; 50		
Data Element Length	1		
Data Type	NUMERIC		
Justified		*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	Repeating
Nationally Controlled	YES	*Masterfile Length*	1

Edit Error Messages:

* INVALID EMISSION CATEGORY

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

Definition: POLLUTANT AIR QUALITY MAINTENANCE INDICATOR indicates whether or not the pollutant impacts AQMA standards or not

Retrieval Abbreviation	PAQM	*Valid Values:* Blank = NO Y = YES	
Card Type	3		
Card Columns	27; 39; 51		
Data Element Length	1		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	REPEATING
Nationally Controlled	YES	*Masterfile Length*	1
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

The default value is blank indicating 'NO'.

Definition: POLLUTANT AIR QUALITY CONTROL INDICATOR shows the AQCR status of a given pollutant.

Retrieval Abbreviation	PAQC	*Valid Values:* Blank = not applicable N = non-attainment 1 = attained primary standards 2 = attained secondary standards	
Card Type	3		
Card Columns	28; 40; 52		
Data Element Length	1		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	REPEATING
Nationally Controlled	YES	*Masterfile Length*	1
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

Definition: POLLUTANT LOADING indicates the loading factor for a given pollutant.

Retrieval Abbreviation	LOAD	*Valid Values:*	
Card Type	3		
Card Columns	29-33 44-48 53-57		
Data Element Length	5		
Data Type	NUMERIC		
Justified	RIGHT	*MasterFile Record Type*	30
Required on New Entry	NO	*MasterFile Position*	REPEATING
Nationally Controlled	NO	*MasterFile Length*	5
Edit Error Messages:			
***= = Fatal Error*		** = Warning Error*	

Coding Considerations:

If this field is used, it should be a numeric value representing actual emissions in tons per year.

Definition: FACILITY CAPACITY indicates the total output capacity of the products produced at a facility. This might be expressed in several types of units such as barrels, kilowatt-hours, etc.

Retrieval Abbreviation	FCAP	*Valid Values:*	
Card Type	30		
Card Columns	58-64		
Data Element Length	7		
Data Type	NUMERIC		
Justified	RIGHT	*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	42-48
Nationally Controlled	NO	*Masterfile Length*	7
Edit Error Messages:			
**** = Fatal [illegible]or*		** = Warning Error*	

Coding Considerations:

a. For general processes, use tons per year of output product. If a facility produces over 10 million tons per year, code all 9's in this field.

b. For refineries, use barrels of petroleum processed per day.

c. For petroleum storage facilities, use thousands of barrels total capacity.

d. For incinerators (sewage sludge or municipal refuse), use tons per day.

e. For electric utilities, use total megawatt capacity.

Definition: USER SUPPLIED

Retrieval Abbreviation	RDR9	*Valid Values:*	
Card Type	3		
Card Columns	65-71		
Data Element Length	7		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	23-29
Nationally Controlled	NO	*Masterfile Length*	7
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

Definition: USER SUPPLIED

Retrieval Abbreviation	RD10	Valid Values:	
Card Type	1		
Card Columns	72-73		
Data Element Length	2		
Data Type	ALPHANUMERIC		
Justified		Masterfile Record Type	30
Required on New Entry	NO	Masterfile Position	30-31
Nationally Controlled	NO	Masterfile Length	2
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

Coding Considerations:

Card Type 1
Data Element Sheet

REGIONAL DATA ELEMENT 11

Definition: User supplied

Retrieval Abbreviation	RD11	Valid Values:	
Card Type	3		
Card Columns	74-75		
Data Element Length	2		
Data Type	ALPHANUMERIC		
Justified		Masterfile Record Type	50
Required on New Entry	NO	Masterfile Position	32-33
Nationally Controlled	NO	Masterfile Length	2

Edit Error Messages:

*** = Fatal Error   * = Warning Error

Coding Considerations:

__Definition:__ User supplied

Retrieval Abbreviation	RD12	Valid Values:	
Card Type	3		
Card Columns	76		
Data Element Length	1		
Data Type	ALPHANUMERIC		
Justified		Masterfile Record Type	
Required on New Entry	NO	Masterfile Position	
Nationally Controlled	NO	Masterfile Length	
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

__Coding Considerations:__

Card Type 3
Data Element Sheet

Definition: LINE NUMBER is used by the computer to distinguish one comment line from another.

Retrieval Abbreviation		*Valid Values:* 0 through 9	
Card Type	4, 6, 8		
Card Columns	10		
Data Element Length	1		
Data Type	NUMERIC		
Justified		*Masterfile Record Type*	21, 35, 47
Required on New Entry	YES	*Masterfile Position*	21
Nationally Controlled	YES	*Masterfile Length*	1

Edit Error Messages:

*** LINE NUMBER MUST BE NUMERIC

**** = Fatal Error* ** = Warning Error*

Coding Considerations:

Assign line numbers sequentially. Before assigning a line number, refer to the source data report to be sure the number you code is not already on the data base for that particular emission point. Although Line Number is carried on the masterfile, it is not a retrievable data element.

Definition: COMMENTS can be used to place on the CDS masterfile data which does not fit into any fixed card format.

Retrieval Abbreviation		*Valid Values:* All alphanumeric values.	
Card Type	4, 6, 8		
Card Columns	21-79		
Data Element Length	59		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	21, 33, 47
Required on New Entry	NO	*Masterfile Position*	22-80
Nationally Controlled	NO	*Masterfile Length*	59
Edit Error Messages:			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

Comments are not retrievable on a Quick Look Report; therefore, it is better to use a fixed-format data element on Cards 1, 3, 5, or 7 whenever possible.

Use Card 4 for a source comment;
    Card 6 for a point comment;
    Card 8 for an action comment.

Do not use comment records to carry action information on compliance status information; other card types are available for these purposes.

Definition: SCC CODE is the NEDS Standard Classification Code which provides a detailed analysis of the process creating the emission for this point.

Retrieval Abbreviation	SCC3, SCC6, SCC8	*Valid Values:* Consult the NEDS coding manual for a list of valid values. The CDS edit accepts blanks or an 8 position numeric field.	
Card Type	5		
Card Columns	20-27		
Data Element Length	8		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	36
Required on New Entry	NO	*Masterfile Position*	21-28
Automatically Controlled	YES	*Masterfile Length*	8

Edit Error Messages:

* SCC CODE SHOULD BE NUMERIC

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

Although all 8 positions must be coded on all points other than 000, the retrieval can select on either the first 3 positions, the first 6 positions, or all 8 positions. SCC 3 retrieves on the first 3 positions of the SCC Code; SCC6 retrieves on the first 6 positions of SCC Code; and SCC 8 retrieves on the first 8 positions of the SCC Code.

For some industries, DSHE has expanded on the values in the NEDS coding manual; special guidance will be provided for these SCC codes.

NEDS EMISSION CROSS REFERENCE

Definition: NEDS EMISSION CROSS REFERENCE is the NEDS emission point number. NEDS assigns emission point numbers based on physical emission points. If the CDS emission point number is different from the NEDS point number, this field should be filled in.

Retrieval Abbreviation	NEAP	Valid Values:	01-99
Card Type	5		
Card Columns	28-29		
Data Element Length	2		
Data Type	NUMERIC		
Justified	LEFT	Masterfile Record Type	36
Required on New Entry	NO	Masterfile Position	19-20
Nationally Controlled	YES	Masterfile Length	2
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

Coding Considerations:

COMPLIANCE STATUS

Definition: COMPLIANCE STATUS gives the Regional Offices an indication of whether or not a source is in compliance, not in compliance, or whether its compliance status is unknown.

Retrieval Abbreviation	CMST	*Valid Values:* Blank, 0 through 9, A, B, C.	
Card Type	5		
Card Columns	30		
Data Element Length	1		
Data Type	NUMERIC		
Justified		*Masterfile Record Type*	3A
Required on New Entry	YES	*Masterfile Position*	31
Nationally Controlled	YES	*Masterfile Length*	1
Edit Error Messages: *** INVALID COMPLIANCE STATUS			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

Must be coded on the point 000; may be coded on the other emission points.

COMPLIANCE STATUS CODES:

Blank	Unknown	
0	Unknown	
1	Not in compliance	
2	In compliance by source test	
3	In compliance by inspection	
4	In compliance by certification	With regulation
5	In compliance with increments of progress	
6	Not in compliance with increments of progress	With Schedule
7	Unknown compliance with increments of progress	
8	No applicable state regulation	
9	In compliance - closed down	
A	Unknown compliance with procedure requirements	
B	In violation of procedure requirements	
C	In compliance with procedure requirements	

SIP CODE

Definition: SIP CODE provides the Regional Office with a method of separating facilities, points, or actions under schedules by identifying the type of compliance schedule that the facility is on.

Retrieval Abbreviation	SIPC	*Valid Values:* Blank, 0 through 8.	
Card Type	5		
Card Columns	31		
Data Element Length	1		
Data Type	NUMERIC		
Justified		*Masterfile Record Type*	16
Required on New Entry	NO	*Masterfile Position*	12
Nationally Controlled	YES	*Masterfile Length*	1
Edit Error Messages: * INVALID SIP CODE			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

SIP CODES:

Blank	Not specified
0	Regulation effective before 1/31/74
1	Schedule specified in control regulation
2	Schedule approved by EPA
3	State/local enforcement order (admin)
4	State/local Court order - consent decree
5	SEC 113 order; active EPA Enforcement
6	FED promulgation of SIP schedule
7	Schedule not yet approved - under review
8	EPA approved, state revised schedule

POLLUTANT CODE

Definition: POLLUTANT CODE indicates the type of pollutant which the compliance schedule is intended to abate.

Retrieval Abbreviation	PLUT	*Valid Values:* See below for the table of valid values.	
Card Type	5		
Card Columns	32-33		
Data Element Length	2		
Data Type	ALPHANUMERIC		
Justified	LEFT	*Masterfile Record Type*	34
Required on New Entry	YES	*Masterfile Position*	33-34
Nationally Controlled	YES	*Masterfile Length*	2

Edit Error Messages:

* INVALID POLLUTANT CODE

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

Should be input on all new emission points. Use one of the following values:

VALID VALUES

AS = Asbestos
BE = Beryllium
CO = Carbon Monoxide
FL = Fluorides
HC = Hydrocarbons
HG = Mercury
N2 = NO_2
OD = Odors
OT = Other
PT = Particulate Matter
S2 = SO_2
TS = Total Reduced Sulfur
VE = Visible Emissions
VC = Vinyl Chloride

Definition: **STATE REGULATION** contains the state's emission regulation number for a given pollutant. In the case of NSPS or NESHAPS facilities, use the federal or state regulation number found in the *Federal Register*, CFR 60.15.

Retrieval Abbreviation	SREG	*Valid Values:* All alphanumeric values.	
Card Type	5		
Card Columns	34-48		
Data Element Length	15		
Data Type	ALPHANUMERIC		
Justified		*MasterFile Record Type*	34
Required on New Entry	NO	*MasterFile Position*	33-47
Nationally Controlled	NO	*MasterFile Length*	15
Edit Error Messages:			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

Definition: EMISSION CATEGORY provides the Regional Offices with a method of ranking or grouping sources by broad emission level categories to assist in the evaluation of state enforcement progress.

Retrieval Abbreviation	ECAT
Card Type	5
Card Columns	49
Data Element Length	1
Data Type	NUMERIC
Justified	
Required on New Entry	YES
Nationally Controlled	YES

Valid Values:

Blank	= unknown
0	= unknown
1	= less than 100 TPY potential
2	= 100-1000 TPY potential
3	= over 1000 TPY potential
4	= less than 25 TPY potential

Masterfile Record Type	5A
Masterfile Position	50
Masterfile Length	1

Edit Error Messages:

* INVALID EMISSION CATEGORY

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

Must be coded on point 000; may be coded on the other emission points.

For Point 000, the Emission Category must reflect the potential emission of the entire source according to the Regional Air Program Guidance. The EC code should be filled out after consulting the NEDS emission inventory output and then determining potential emissions for the entire source.

PROCESS DESCRIPTION

Definition: **PROCESS DESCRIPTION** is a brief description of the physical emission point such as a boiler or a cupola. At the 000 Emission Point level, this should be used to describe the type of plant such as a generating station or a portland cement plant.

Retrieval Abbreviation	PROS	*Valid Values:*	
Card Type	3	All alphanumeric characters.	
Card Columns	50-74		
Data Element Length	25		
Data Type	ALPHANUMERIC		
Justified	LEFT	*Masterfile Record Type*	3A
Required on New Entry	YES	*Masterfile Position*	51-75
Nationally Controlled	NO	*Masterfile Length*	25

Edit Error Messages:

**** = Fatal Error*   ** = Warning Error*

Coding Considerations:

Abbreviations should be used consistently and clearly for sorting and retrieval purposes, i.e., BLR-3 for Boiler #3. If several emission points have similar process descriptions, be sure to identify each point with a unique process description, such as a boiler number or a specification for the process. These descriptions must be clear enough so that an inspector or other agency official can readily identify the apparatus at a facility to which the CDS record applies.

Definition: MULTIPLE CROSSREFERENCE is used to tie together various emission points. When one physical emission point has several emission point numbers (one for each pollutant or regulation) this field should be used to tie together the various point numbers referring to one physical point.

Retrieval Abbreviation	MULT	Valid Values: All numerics	
Card Type	5		
Card Columns	75-77		
Data Element Length	3		
Data Type	NUMERIC		
Justified	LEFT	Master File Record Type	3a
Required on New Entry	NO	Master File Position	76-78
Nationally Controlled	NO	Master File Length	3

Edit Error Messages:

* MULTIPLE XREF SHOULD BE NUMERIC

*** = Fatal Error   * = Warning Error

Coding Considerations:

If emission points 001 through 003 refer to three different pollutants being emitted from one process or piece of equipment, points 002 and 003 should cross-reference 001.

REGIONAL DATA ELEMENT 7

Definition: User supplied.

Retrieval Abbreviation	RDE7	Valid Values: All alphanumeric values.
Card Type	5	
Card Columns	78	
Data Element Length	1	
Data Type	ALPHANUMERIC	
Justified		Master File Record Type: 35
Required on New Entry	NO	Master File Position: 79
Nationally Controlled	NO	Master File Length: 1
Edit Error Messages:		
*** = Fatal Error		* = Warning Error

Coding Considerations:

AIR TWO

Definition: AIR TWO is a one position compliance indicator used to show compliance with SIP emission limitations for TSP, SO_2, HC, CO, and NO_2 in non-attainment AQCR's.

Retrieval Abbreviation	AIR2	Valid Values:	Blank, 0 through 9. These codes have the same values as CMPY.
Card Type	5		
Card Columns	79		
Data Element Length	1		
Data Type	Alphanumeric		
Justified		Master file Record Type	36
Required on New Entry	No	Master file Position	80
Nationally Controlled	Yes	Master file Length	1
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

Coding Considerations:

This field must be used to indicate the compliance status of a facility at the Point 000 level if the following two conditions are met:

1. The facility is located in a non-attainment AQCR.
2. The facility has been designated as a source which impacts the non-attainment standards for that AQCR as indicated by a "1" in AIR1.

If a facility is in compliance with all applicable federal, state, and local regulations, both CMPY and AIR2 must contain the same value. However, a facility may be in compliance with the particular pollutant for which the AQCR is non-attainment, and yet it may be of unknown compliance or out of compliance with regulations for other pollutants. In such a situation, CMPY might be a blank, 0, 1, or 6, and AIR2 will indicate in compliance, (2, 3, 4, 5, or 9).

If an AQCR is designated as non-attainment for more than one pollutant, and if the facility is out of compliance with any one of these non-attainment pollutants, AIR2 must reflect the worst case compliance status. For instance, if an AQCR is non-attainment for TSP and SO_2, and if the facility is of unknown compliance with SO_2 regulations and not in compliance with TSP regulations, AIR2 must contain a 1 for not in compliance. For further clarification, refer to the [illegible] regional operating guidance for AIR2 outputs.

Card Type 5
Data Element Sheet

Definition: ACTION TYPE is a two position action description identifier. There are at the present 100 possible action types; the first five are the basic increments of progress federally defined; the rest are regionally defined.

Retrieval Abbreviation	ATYP	Valid Values: Must be on Action Table controlled by national DBC. Action Type 00 indicates an action type which is user defined.	
Card Type	7		
Card Columns	13-14		
Data Element Length	2		
Data Type	NUMERIC		
Justified	LEFT	Masterfile Record Type	46
Required on New Entry	YES	Masterfile Position	21-22
Nationally Controlled	YES	Masterfile Length	2

Edit Error Messages:

*** INVALID ACTION TYPE
*** ACTION TYPE REQUIRED ON NEW ENTRY

*** = Fatal Error   * = Warning Error

Coding Considerations:

Please call the national DBC to add, change, or delete entries on the Action Table for your region.

If 00 is coded in the Action Type field, the Edit program will pick up an Action Description from card columns 20 through 34 of the Card 7. This capability should eliminate the need for using an Action Type meaning "OTHER - SEE COMMENTS BELOW".

DATE ACHIEVED

Definition: DATE ACHIEVED is the date on which an action is performed or completed in month, day, year format.

Retrieval Abbreviation	DTAC	*Valid Values:* Blanks, zeros are acceptable. If numeric other than zero, day must be between 01 and 31, month must be between 01 and 12, and year must be greater than 60.	
Card Type	7		
Card Columns	55-60		
Data Element Length	6		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	46
Required on New Entry	NO	*Masterfile Position*	29-34
Nationally Controlled	NO	*Masterfile Length*	6

Edit Error Messages:

* INVALID DATE ACHVD - OUTPUT ZEROS

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

If an error is encountered in the date field, the bad month or day or year is zeroed out by the edit program. An asterisk on a change transaction for this field will zero out the field on the masterfile.

Definition: DATE SCHEDULED is the date on which an action is scheduled to be performed. Use the month, day, year format.

Retrieval Abbreviation	DTSC	*Valid Values:* Blanks or zeros are acceptable. Otherwise, day must be between 01 and 31; month must be between 01 and 12, and year must be greater than 60.	
Card Type	7		
Card Columns	61-66		
Data Element Length	6		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	46
Required on New Entry	YES	*Masterfile Position*	23-28
Nationally Controlled	NO	*Masterfile Length*	6

Edit Error Messages:

* INVALID DATE SCHED - OUTPUT ZEROS

* DATE SCHED REQUIRED ON NEW ENTRY

**** = Fatal Error* — ** = Warning Error*

Coding Considerations:

If an error is encountered in the date field, the bad month or day or year is zeroed out. The Update Program no longer generates any value for this field if it is left blank.

Definition: ACTION STAFF CODE is a three position code referring to the staff member assigned to complete the action.

Retrieval Abbreviation	PERA
Card Type	7
Card Columns	67-69
Data Element Length	3
Data Type	ALPHANUMERIC
Justified	LEFT
Required on New Entry	NO
Nationally Controlled	YES

Valid Values:

Must exist on the Personnel Table controlled by the national DBC. The first position must be alpha; the next two numeric.

Masterfile Record Type	46
Masterfile Position	35-37
Masterfile Length	3

Edit Error Messages:

* INVALID STAFF CODE

**** = Fatal Error* ** = Warning Error*

Coding Considerations:

Please call the national DBC to make additions, changes, or deletions to the Personnel Table.

Definition: RESULTS CODE indicates the results of an action such as action achieved, action not achieved, or action rescheduled.

Retrieval Abbreviation	STAC	*Valid Values:* May be a blank; if not a blank, it must be a two digit numeric field. Must exist on the RESULTS-CODE Table controlled by the national DBC.	
Card Type	7		
Card Columns	70-71		
Data Element Length	2		
Data Type	NUMERIC		
Justified	LEFT	*Masterfile Record Type*	A6
Required on New Entry	NO	*Masterfile Position*	35-36
Nationally Controlled	YES	*Masterfile Length*	2

Edit Error Messages:

* INVALID RESULTS CODE

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

The results code does not indicate the success of an action, but rather whether or not the action was carried out, or whether another action should be referred to.

Please call the national DBC to add, change, or delete entries on the Results-Code Table for your region.

REGIONAL DATA ELEMENT 8

Definition: User supplied.

Retrieval Abbreviation	RDR 8	Valid Values:	
Card Type	7		
Card Columns	72 - 73		
Data Element Length	2		
Data Type	ALPHANUMERIC		
Justified	LEFT	Masterfile Record Type	46
Required on New Entry	NO	Masterfile Position	57 - 58
Nationally Controlled	NO	Masterfile Length	2
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

Coding Considerations:

Definition: ACTION DESCRIPTION is generated on each action record based on ACTION TYPE. Action Description may be coded on the card 7 for Action Type 00.

Retrieval Abbreviation	ADES	*Valid Values:* Please call the national DBC to add or change action descriptions on the regional Action Table.	
Card Type	7		
Card Columns	20-34		
Data Element Length	15		
Data Type	ALPHANUMERIC		
Justified	LEFT	*Masterfile Record Type*	16
Required or New Entry		*Masterfile Position*	107-156 40-54
Nationally Controlled	YES	*Masterfile Length*	50 15
Edit Error Message:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

Two action descriptions are generated from Action Type; the first is a 50 position long action description available on the Source Data Report, and the second is a 15 position short action description retrievable on a Quick Look Report.

When Action Type 00 is specified in card columns 53 and 54, the Edit program will pick up a 15 position Action Description from card columns 20 through 34 of the Card 7 and place this description on both the short and long Action Description on the CDS Masterfile. Action Type 00 is designed for infrequently used actions which are not placed on the Action Table controlled by the National DBC. It can be a replacement for the regional Action Type "OTHER - SEE COMMENTS BELOW". Since comments are not retrievable but Action Type and Action Description are retrievable, the Action Type 00 should be most useful for infrequently used actions which are not on the Action Table.

COUNTY NAME

Definition: COUNTY NAME is generated by the Edit from the COUNTY CODE.

Retrieval Abbreviation	CTNM	*Valid Values:* Appendix B contains a list of county names valid for each region/state/county combination.	
Card Type			
Card Columns			
Data Element Length			
Field Type	ALPHABETIC		
Justified		*Masterfile Record Type*	10
Required on New Entry		*Masterfile Position*	163-179
Nationally Controlled	YES	*Masterfile Length*	17

Edit Error Messages:

*** = *Fatal Error*　　* = *Warning Error*

Coding Considerations:

This field is generated; it cannot be coded. The national DRC maintains a table of COUNTY CODE/COUNTY NAME combinations.

DATE LAST UPDATED

Definition: DATE LAST UPDATED represents the most current date on which an input transaction was added or changed for any part of a facility on the masterfile.

Retrieval Abbreviation	UPDA	Valid Values:	
Card Type			
Card Columns			
Data Element Length			
Data Type	NUMERIC		
Justified		Masterfile Record Type	10
Required on New Entry		Masterfile Position	134-139
Nationally Controlled		Masterfile Length	6
Edit Error Messages:			
** = Fatal Error		* = Warning Error	

Coding Considerations:

This date is in year, month, day format.

RECORD TYPE

Definition: RECORD TYPE is a two position numeric masterfile record identifier.

Retrieval Abbreviation		*Valid Values:* 10 = Source 21 = Source comment 34 = Emission Point 35 = Point comment 46 = Action 47 = Action comment	
Card Type			
Card Columns			
Data Element Length			
Data Type	NUMERIC		
Justified		*Masterfile Record Type*	10-47
Required on New Entry		*Masterfile Position*	19-20
Nationally Controlled		*Masterfile Length*	2
Edit Error Messages:			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

Each Card Type has a corresponding masterfile Record Type.

STAFF NAME (ACTION)

Definition: STAFF NAME (ACTION) is a fifteen position name generated from the Staff Code found on Card 7, positions 67-69.

Retrieval Abbreviation	STFA	Valid Values: All names are on the Personnel Table maintained by the national DMC. Please call the DMC to make additions or changes to this table.	
Card Type			
Card Columns			
Data Element Length			
Data Type	ALPHANUMERIC		
Justified		Masterfile Record Type	06
Required on Key Entry		Masterfile Position	63-77
Nationally Controlled	YES	Masterfile Length	15
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

Coding Considerations:

During each update cycle, the Staff Name is generated based on the Action Staff Code. By changing the staff name associated with a staff code on the Personnel Table, all input transactions and masterfile records will carry the new staff name.

Definition: STAFF TITLE is a fifteen position title generated from the Staff Code found on Card 1, positions 67-69.

Retrieval Abbreviation	TITL	*Valid Values:* All titles are on the Personnel Table maintained by the national DBA.	
Card Type			
Card Columns			
Data Element Length			
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	AA
Required on New Entry		*Masterfile Position*	78-92
Nationally Controlled		*Masterfile Length*	15
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

During each update cycle, the Staff Title is generated based on the Action Staff Code. By changing the title associated with a staff code on the Personnel Table, all input transactions and masterfile records will carry the new title.

Definition: STAFF NAME (SOURCE) is a fifteen position name generated from the Staff Code found on Card 3, positions 77-79.

National Abbreviation	STFS	*Valid Values:* All names are on the Personnel Table maintained by the national SBC. Please call the SBC to make additions or changes to this table.	
Card Type			
Card Columns			
Data Element Length			
Data Type	ALPHANUMERIC		
Justified		*MasterFile Record Type*	10
Required on New Entry		*MasterFile Position*	119-133
Nationally Controlled	YES	*MasterFile Length*	15
Edit Error Messages: *** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

During each update cycle, the Staff Name is generated based on the source's Staff Code. By changing the staff name associated with a staff code on the Personnel Table, all input transactions and masterfile records will carry the new staff name.

Definition: STATE ABBREVIATION is generated from STATE CODE. It is the standard two position alpha abbreviation set by the Post Office.

National Abbreviation	STAB	Valid Values:	
Card Type			
Card Columns			
Data Element Length			
Data Type	ALPHABETIC		
Justified		Master File Record Type	1B
Required on New Entry		Master File Position	53-54
Nationally Controlled		Master File Length	2
Edit Error Messages:			
*** = Fatal Error		* = Warning Error	

Coding Considerations:

Definition: Emission Category Description is the English language description associated with Emission Category (ECAT). It is generated by the computer based on the value of ECAT. The description is controlled by the national SDC. It does not reside on the master file. ECDS will automatically change when ECAT is updated.

Standard Abbreviation	ECDS	*Valid Values*: See Below	
Card Type	--		
Card Columns	--		
Data Element Length	20		
Data Type	Alphanumeric		
Justified	Left	*Masterfile Record Type*	
Required on New Entry	No	*Masterfile Position*	
Nationally Controlled	Yes	*Masterfile Length*	
Edit Error Messages:			
*** = *Fatal Error*		* = *Warning Error*	

Coding Considerations:

ECAT Value	ECDS Description
Blank	Unknown
0	Unknown
1	Less than 100 TPY
2	100 to 1000 TPY
3	Over 1000 TPY
4	Less than 25 TPY
9	Dummy

Note: If ECAT is not one of the above values, "Unknown" will appear as the description.

COMPLIANCE STATUS DESCRIPTION

Definition: **Compliance Status Description** is an English language description of Compliance Status (CMST). It is a computer generated field which is determined by CMST. The description is controlled by the national DBC. It is not present on any master file record. A change to CMST will result in a change to the description.

Retrieval Abbreviation	CMDS	*Valid Values:* See Below	
Card Type	--		
Card Columns	--		
Data Element Length	30		
Data Type	Alphanumeric		
Justified	Left	*Masterfile Record Type*	
Required on New Entry	No	*Masterfile Position*	
Nationally Controlled	Yes	*Masterfile Length*	
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

CMST Value	CMDS description
Blank	Compl Status unknown
0	Compl Status unknown
1	Not in compl - No Schd
2	In Compl - Source test
3	In Compl - Inspection
4	In Compl - Certification
5	In Compl w Schedule
6	Not in Compl w Schd
7	Unknown Compl w Schd
8	No Applic State Reg
9	In Compl - Shut Down

NOTE: If CMST is not any of the above values, "Compl Status unknown" will appear as the description.

SIP CODE DESCRIPTION

Definition: Sip Code Description is the English language description of Sip Code (SIPC). It is generated by the computer based on the value of SIPC. This description is controlled by the national DBC. It is not present on the master file. The description will automatically change when SIPC is changed.

Retrieval Abbreviation	SIDS	*Valid Values:* See Below	
Card Type	--		
Card Columns	--		
Data Element Length	20		
Data Type	Alphanumeric		
Justified	Left	*Masterfile Record Type*	
Required on New Entry	No	*Masterfile Position*	
Nationally Controlled	Yes	*Masterfile Length*	
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

SIPC Value	SIDS description
Blank	Not Specified
0	No Schedule
1	Sched Specif in Regs
2	Approved State Sched
3	State Enf/Adm Orders
4	Court Ord/Consnt Dec
5	§113 Order - EPA Enfor
6	EPA Prom of Sched
7	Sched Pend/Not Apprv
8	Revised Apprvd Sched
9	Not Specified

NOTE: If SIPC is not any of the above values, "Not Specified" will appear as the description.

Definition: **Results Code Description** is an English language description of the results code (STAC). It is computer generated based on the region and the STAC. It is not input by the user. It is stored on the master file and is updated when STAC is changed.

Retrieval Abbreviation	RSTD	*Valid Values:* The Results Code (STAC) must exist on the RESULTS CODE TABLE controlled by the national DBC.	
Card Type	--		
Card Columns	--		
Data Element Length	15		
Data Type	Alphanumeric		
Justified	Left	*Masterfile Record Type*	46
Required on New Entry	No	*Masterfile Position*	157
Nationally Controlled	Yes	*Masterfile Length*	15
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

Definition: AIR PROGRAM CODE DESCRIPTION is the English language description of the Air Program Code. It is generated by the computer for Quick Look Reports based on the value of APCD.

Retrieval Abbreviation	APDS	*Valid Values:*	
Card Type	N/A		
Card Columns	N/A		
Data Element Length	20		
Data Type	ALPHABETIC		
Justified	LEFT	*Masterfile Record Type*	N/A
Required on New Entry	NO	*Masterfile Position*	N/A
Nationally Controlled	YES	*Masterfile Length*	20
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

APCD	AIR PROGRAM DESCRIPTION
blank	SIP Source
C	Closed/Inactive
0	SIP Source
1	SIP Active
2	APCD 2
3	APCD 3
4	PSECA
5	Other
6	Non-Significant Deterioration
7	New Source Review
8	NESHAPS
9	NSPS

Definition: OLD COMPLIANCE STATUS represents a historic record of previous quarterly compliance statuses for the past eight quarters. It is generated on a quarterly basis by the Update Program based on information found in the CMST field.

Retrieval Abbreviation	OCS0	*Valid Values:*	
Card Type	N/A		
Card Columns	N/A		
Data Element Length	8		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	14
Required on New Entry	N/A	*Masterfile Position*	81-88
Nationally Controlled	YES	*Masterfile Length*	8
Edit Error Messages:			
**** = Fatal Error*		** = Warning Error*	

Coding Considerations:

Users cannot input this value. The entire field is also subdivided into the following eight retrievable data elements:

Name	Retrieval Abbreviation
Old Comp Status - 1st Quarter	OCS1
2nd	OCS2
3rd	OCS3
4th	OCS4
5th	OCS5
6th	OCS6
7th	OCS7
8th	OCS8

In April 1977, the Compliance Status found on each emission point record will be placed in OCS1. During each subsequent quarter, the current compliance status is stored in OCS1, and all previous quarterly compliance statuses are moved into the next higher OCS field. After eight quarters, the oldest compliance status will be dropped to make room for the next quarterly historic compliance status.

With these eight historic compliance status fields, users will be able to compare current compliance status with previous compliance status sent to the Formal Program Reporting System.

Card Type
Data Element Sheet

Definition: BASIC POLLUTANT INFORMATION is designed to provide a single Quick Look print line data element showing data for the following Card 3 pollutants; Particulates, SO_2, HC, CO, NO_x.

Retrieval Abbreviation	BPLT	*Valid Values:*	
Card Type	N/A		
Card Columns	N/A		
Data Element Length	61		
Data Type	ALPHANUMERIC		
Justified		*Masterfile Record Type*	30
Required on New Entry	NO	*Masterfile Position*	49-108
Nationally Controlled	YES	*Masterfile Length*	60

Edit Error Messages:

*** = *Fatal Error* * = *Warning Error*

Coding Considerations:

APPENDIX B

CONTACT LIST
OF
CDS USERS

Contact List of CDS Users

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